Timber Supply and Demand 1999

Alaska National Interest Lands Conservation Act Section 706(a) Report to Congress USDA Forest Service, Alaska Region

Preface

This is the nineteenth report prepared in accordance with Section 706(a) of the Alaska National Interest Lands Conservation Act (ANILCA), which directs the Secretary of Agriculture to monitor and report annually on timber supply and demand in Southeast Alaska. The following pages provide a summary of timber sale activity in the region and a review of the primary factors affecting timber markets in fiscal year 1999.

As required by Section 706(a) of ANILCA, this report was prepared in consultation with representatives from the State of Alaska, the affected Native Corporations, the Southeast Alaska timber industry, the Southeast Alaska Conservation Council, and the Southeast Alaska commercial fishing industry.

Copies of this report have been submitted to the U.S. Senate Committee on Energy and Natural Resources and the U.S. House of Representatives Committee on Natural Resources. Additional copies may be obtained by writing to:

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Introduction

Section 706(a) of the Alaska National Interest Lands Conservation Act (ANILCA) directs the Secretary of Agriculture to monitor and report annually on timber supply and demand in southeastern Alaska. Accordingly, this report describes the status of the timber market in Southeast Alaska during the 1999 federal fiscal year (October 1, 1998 – September 30, 1999).

For purposes of this report, timber supply is defined as the sum of: 1) timber sales advertised and timber sales purchased competitively under the Forest Service independent sale program; 2) timber released to the Ketchikan Pulp Company (KPC) during the close-out of KPC's long-term timber contract; and 3) timber made available for purchase from State and privately owned lands. The sequence of activities needed to move federal timber sales through various stages of sale preparation is referred to as the "pipeline" and is referenced here to provide an indication of timber availability in future years.

The demand for timber in Southeast Alaska is determined by the number, capacity, and efficiency of wood processors in the region, the type and value of products manufactured, the technology employed in manufacturing those products, and delivered wood costs. Ultimately, the interaction of all these factors will result in the harvest and import of timber by processors and distributors in the region.

This report monitors the volume of timber purchased, harvested, consumed and exported each year, all of which are indicators of the demand for timber in Southeast Alaska. Some of these measures necessarily include timber from non-federal suppliers in the region and timber imported from foreign or domestic sources. Because the rate at which timber is purchased and harvested depends on the demand for wood products, changes in the wood products industry in Southeast Alaska and significant developments in key markets are also documented.

Timber Supply

Tongass Timber Offerings

Timber sale offerings from the Tongass National Forest totaled 277 million board feet (MMBF) in fiscal year (FY) 1999. Sixty-two timber sales were offered during the year, including 33 small sales (less than 1 MMBF). Roughly one-third of the sale volume was offered during the last week of the fiscal year. As of September 30, 1999, 47 MMBF of the volume offered in FY 1999 was awarded, no bids were received on 79.1 MMBF, and award was pending for the remaining 150.9 MMBF. Re-offered sales accounted for 58 percent of the FY 1999 program and are included in the figures reported above.

As reported in the FY 1998 Timber Supply and Demand Report, no bids were received for 161.7 MMBF of timber offered in FY 1998. Some of these sales were reworked to make them more attractive to potential bidders and all were re-offered as part of the FY 1999 program. Of the timber re-offered, 78.7 MMBF again received no bids. Bids were received on the remaining 83.0 MMBF, although the award of 44.6 MMBF of the reoffered volume was pending financial review of the high bidder.

At 61.5 MMBF, the volume of timber sold from the Tongass in FY 1999 remained well below the decade average of 254 MMBF. The total volume sold included 14.5 MMBF of timber offered at the end of FY 1998 and awarded in FY 1999. A number factors contributed to the depressed sales volume, including poor market conditions, industry restructuring in the absence of the pulp mills and the long-term contracts, and changes in logging specifications required under the new Tongass Land Management Plan. The industry relied upon volume purchased in prior years to maintain mill operations.

The average advertised rate for the timber offered and sold in FY 1999 was \$12.17/MBF. The average high bid for these sales was \$16.32/MBF. The close link between the advertised rate and the actual bid rates reflects the accuracy of the new appraisal system adopted by the Region on April 1, 1999.² The heart of the new Transaction Evidence Appraisal (TEA) system is a database of actual stumpage values recorded for timber sales in the Region. Species-specifice stumpage values are derived from this historical database and then adjusted for each sale to account for current market conditions, and sale-specific timber quality and harvest costs. A key advantage to the new system is that TEA calculates projected stumpage values (i.e. advertised rates) on the basis of observed stumpage values. Prior to implementation of TEA, the Region used Residual Value Appraisal System in which stumpage values were calculated indirectly, by subtracting all sale-related costs from estimated end-product selling values.

In deciding whether to purchase a sale and how much to bid for the stumpage, a potential buyer must consider the costs of logging the timber and bringing the wood to the manufacturing facility. These costs vary widely from sale to sale depending on the logging system prescribed, the layout of the sale units and the amount of road construction needed to

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¹ The figure reported in the 1998 Report has been adjusted upward slightly to include a few very small timber sales that were offered but not sold.

² FSH 2409.22 Chapter 600, FSH 2409.18 Chapter 40

access the timber. On average, the sales that sold in FY 1999 had lower logging/road costs than the sales that received no bids.³ The timber sold in FY 1999 had a weighted average logging/road cost of \$306/MBF. This compares with the average cost of \$357/MBF for the timber that did not sell. The species ratio, timber quality, and volume per unit of road constructed are other sale attributes that influence bidder behavior.

Tables A-1a and A-1b provide more detailed economic information about the sales offered in FY 1999.

Volume Under Contract

Purchasers of National Forest timber started the fiscal year with approximately 395.3 MMBF of timber under contract. Of this, 229.2 MMBF was under contract to independent purchasers and 166.1 MMBF was associated with the Ketchikan Pulp Company (KPC) long-term contract (Tables A-13 and A-14). By the end of the fiscal year, the volume of timber under contract to independent mills had increased slightly to 232.7 MMBF while KPC's volume under contract dropped to 79.9 MMBF.

The cost of harvesting the timber under contract in FY 1999 remain virtually unchanged from the costs estimated for FY 1998. At the start of FY 1999, volume under contract to independent purchasers had a weighted average logging/road cost of \$328/MBF (\$248/MBF logging + \$80/MBF specified roads). This is roughly \$22/MBF higher than the estimated costs for the timber purchased in FY 1999. The average bid value for these sales included an additional \$50/MBF in net stumpage payments. Continued weakness in the timber market may trigger emergency rate re-determinations and reduce overall cost by some fraction of the bid value.

The situation is a bit different for the timber remaining under the KPC long-term contract. ⁴ Under a February 1997 settlement agreement, KPC was allowed to complete the harvest of an estimated 320 MMBF of timber previously released to the company. As part of the agreement, KPC paid the federal government approximately \$7.5 million in stumpage (roughly \$20/MBF). The federal government agreed to reimburse KPC for the costs of building the roads to access this timber. In this case, the net cost to KPC of harvesting the remaining volume under contract can be approximated by the average logging cost plus the stumpage payment collected as part of the settlement agreement. For the offerings remaining, this equates to \$229/MBF.

Status of the Tongass Timber Pipeline – Timber Supply Outlook

At any point in time, varying amounts of timber from the Tongass National Forest are in different stages of readiness for harvest. Each stage is referred to as a "gate", and is defined by specific activities to be completed by the Forest Service before the associated timber volume can pass on to the next gate. The sequence of gates is commonly referred to as the timber "pipeline" which serves as a link between the standing timber inventory and the sales that are available for harvest. In general, three to five years are needed to move a timber sale through the pipeline. However, administrative appeals can prolong sale preparation time and force adjustments to out-year sale planning.

Given the extended period of time involved in planning and preparing a timber sale, the Forest Service must closely monitor the volume of timber at different stages in the pipeline to ensure

³ Sales less than 500 MBF in size are not included in this analysis.

⁴ Gateway Forest Products was incorporated March 22, 1999 and acquired KPC's wood production facilities in Ketchikan on November 5, 1999. However, KPC is solely responsible for the logging and clean-up associated with all timber included in the 1997 settlement agreement.

that the volume delayed in one gate can be offset by volume supplied from another. At the end of FY 1999, the status of the timber pipeline was as shown in Table 1. Note that the total timber sale program involves a much greater volume of timber than the amount offered for sale each year. For example, at the end of FY 1999, the environmental analysis required under the National Environmental Policy Act (NEPA) had been completed for approximately 649.6 MMBF of timber. This equates to nearly three times the annual offer level in recent years. However, only a fraction of this "NEPA-Cleared" timber is readily available to manufacturers.

At the end of FY 1999, sale preparation and layout still needed to be completed before 54.1 MMBF of the "NEPA-cleared" timber sales could be advertised. An additional 50.2 MMBF was under admistrative appeal and not available to purchasers. Finally, of the 277 MMBF of timber offered in FY 1999, no bids were received on 73.3 MMBF, 106.3 MMBF of sales awaited bid openings, and award of the remaining 44.6 MMBF was pending a financial review of the purchaser. The bulk of the timber most readily available to the industry was offered and awarded in prior years and is reported as volume under contract (312.6 MMBF).

TABLE 1. Tongass Timber Pipeline September 30, 1999

| | KPC | Independent | Total |
|---|------|-------------|---------|
| Notice of Intent Issued: | | 399.8 | 399.8 |
| Decision Notice Issued: | | | |
| Progressing Normally | | 54.1 | 54.1 |
| Under Administrative Appeal (Sea Level EIS) | | 50.2 | 50.2 |
| SUBTOTAL | | 104.3 | 104.3 |
| Offered FY 1999 and: | | | |
| Award Pending | | 44.6 | 44.6 |
| Bid Opening Pending | | 106.3 | 106.3 |
| No Bid, "Shelf Volume" | | 73.3 | 73.3 |
| SUBTOTAL | | 224.2 | 224.2 |
| Other "Shelf Volume: | | 8.5 | 8.5 |
| Volume Under Contract: | | | |
| Offered and Awarded FY 99 | | 47.0 | 47.0 |
| Offered Prior to FY 99 | 79.9 | 185.7 | 265.6 |
| SUBTOTAL | 79.9 | 232.7 | 312.6 |
| Total Pipeline Volume | 79.9 | 969.5 | 1,049.4 |

Other Sources of Timber

Southeast Alaska Native Corporations

The 1971 Alaska Native Claims Settlement Act established thirteen Native Corporations in Southeast Alaska and entitled them to select some 600,000 acres of land from the Tongass National Forest. Approximately 10 percent of the non-reserved standing timber volume in the region was conveyed to these corporations. Over the last two decades, an estimated 6.5 billion board feet of timber have been harvested from private lands in Southeast Alaska. Todate, the Alaska Native Corporations have not invested in wood processing facilities in Alaska and most export-quality logs are shipped to foreign destinations.

⁵ From Table 1, 649.6 MMBF = 104.3 MMBF Decision Notice Issued + 224.2 MMBF Offered/Pending + 8.5 MMBF Shelf Volume + 312.6 MMBF Volume Under Contract.

Following the closure of the Ketchikan pulp mill in 1997, Sealaska, the Southeast Regional Native Corporation, began discussions with Louisiana Pacific about the possibility of forming a joint venture to manufacture veneer and other wood products. The old pulp mill site could potentially house a sawmill/veneer mill complex designed to manufacture both public and private timber supplies. Although the joint venture idea was abandoned in the fall of 1998, Sealaska is reportedly continuing to investigate wood products and markets that could serve as viable alternatives for some of the corporation's log export trade.⁶

State Timberlands

The Department of Natural Resources Division of Forestry manages the state's commercial forestlands, including approximately 65,500 acres in Southeast Alaska. The Division encourages local manufacturing of State timber and makes commercial timber offerings through the following programs:

- Competitive sales offered by sealed bid or oral auction (AS 38.05.120)
- Negotiated sales of up to 500 MBF for one year (AS 38.05.115)
- Negotiated sales in areas with high unemployment, under-utilized mill capacity, and under-utilized allowable cut (AS 38.05.118)
- Negotiated sales of up to 10 MMBF per year for up to 10 years specifically for "high valueadded" processing (AS 38.05.123)

In 1996, the Governor introduced legislation to establish a "high value-added" timber sale program for the State. As set forth in AS 38.05.123, this program is intended to provide a more secure timber supply for local mills and to increase the number of Alaskan jobs supported by the State's timber resources. It allows the Division of Forestry to negotiate larger timber sales with stronger requirements for in-state processing. By regulation, timber sold under this program cannot be harvested until the associated processing facilities are operational.

During FY1999, the Division sold fifteen timber sales in Southeast Alaska. Most of these were small salvage sales, less than ten acres and 500 MBF in size. The Division of Forestry breaks Southeast Alaska into three Areas. The total sale volume proposed for the Ketchikan Area in (State) FY 2000 (7/1/99-6/30/00) is 7.1 MMBF. The Juneau Area is scheduled for 1.6 MMBF in sale volume and 3.9 MMBF of sales are planned for the Haines State Forest. Unless market conditions improve, the actual level of timber sale offerings is likely to be much lower. A notable exception is the increasing demand for small sales (less than 10 acres in size) from operators located on Prince of Wales Island.

Log and Chip Imports

In recent years, only minor log import activity has occurred in Southeast, in part due to higher log prices. Also, in response to growing land use conflicts, the need for watershed protection, and increased resistance to clearcutting, the Canadian government has prohibited round-log export and encouraged the manufacture and sale of finished wood products. Absent the pulp mills, currently there is no local market for the type of low-end logs that found their way into Southeast's timber market in prior years and log imports are expected to be minimal in future years.

 $^{^{6}}$ "Sealaska and LP will not form their joint venture", Island News, September 14, 1998, pg. 1.

Timber Demand

The following pages provide information about the volume of timber harvested, consumed, and exported from within Southeast Alaska, all of which are indicators of timber demand. Some of these measures necessarily include timber from State and private forestlands in the region and timber imported from foreign or domestic sources. In addition, the rate at which timber is purchased and harvested ultimately depends on the demand for wood products. Thus, significant changes in the wood products industry in Southeast Alaska and trends in key wood product markets are also reported.

This report is intended to monitor timber markets and makes no attempt to speculate about what may have transpired if the numerous factors influencing timber and wood product demand had somehow been altered. As a result, it is technically a report on the quantity of timber demanded in FY 1999, given the cost of alternative supplies and the prevailing market conditions.

Timber Harvest Activity

Tongass National Forest

Timber sale operators harvested 132.8 MMBF of sawtimber and 12.9 MMBF of utility-grade logs for a total harvest volume of 145.7 MMBF in FY 1999. The amount of timber harvested under the KPC long-term contract (86.1 MMBF) increased eight percent from FY 1998 harvest levels. Timber harvest activity under the independent sale program (59.6 MMBF) increased by fifty percent relative to last fiscal year.

Southeast Alaska Native Corportations

As shown in Table A-7, a large percentage of the timber harvest activity in Southeast Alaska has occurred on the lands conveyed to the Southeast Alaska Native Corporations. Log export statistics from the U.S. Department of Commerce and (when applicable) production data supplied by the pulp companies were used to generate the annual harvest estimates reported here. These figures indicate that the volume of timber harvested by the Native Corporations peaked at 530 MMBF in 1989 and have since fallen to an annual estimated harvest of 200-250 MMBF.

State of Alaska

A total of 7.3 MMBF of sawlogs and 0.1 MMBF of utility logs were harvested from State timberlands in FY 1999. Several small timber businesses depend on the State's timber program for their wood supply, although it accounts for only 2 to 3 percent of annual timber harvest in the region. The State's timber supply has become increasingly important to local economies, as the Knowles administration has emphasized and encouraged local processing of the timber sold.

⁷ The demand for wood products from a particular supplier depends on the competitive position of that supplier. Other things being equal, relatively high raw material costs put Alaska's manufacturers at a competitive disadvantage.

National Forest Log Exports

Logs harvested from National Forests in Alaska cannot be exported without the prior approval of the Regional Forester (36 CFR 223.201). Historically, western red cedar and Alaska yellow cedar logs were not consumed in local mills and export permits for these relatively minor species were routinely approved. However, in recent years, buyers have expressed interest in keeping some western red cedar in the region for local processing. Accordingly, Section 347 of the FY 1998 Department of Interior and Related Agencies Appropriation Act directed the Forest Service to allow only what is surplus to the needs of local processors to leave the State. This direction was reiterated in Section 350 of the FY 1999 Appropriations Act. Both Acts require that a certain amount of the "surplus" western red cedar must be made available to domestic processors within the contiguous 48 states before it is offered to foreign markets. In addition, all Alaska yellow cedar is considered available for foreign export at the discretion of the timber sale purchaser.

In FY 1998, the Regional Export Procedures were circulated for public comment and published in the Federal Register. The procedures were modified slightly in FY 1999 and codify Regional policy regarding the export of western red cedar, Alaska yellow cedar, and utility logs originating from National Forest System Lands in Alaska. Simply put, under the procedures, utility and western red cedar logs are initially to be appraised to the local Alaskan market. If a buyer can demonstrate the lack of a local market for such material, the timber is to be reappraised for export to markets outside Alaska. For Alaska yellow cedar, the logs are appraised for export. If Alaska yellow cedar is instead processed locally, the difference between the export value and the domestic market value will be rebated to the purchaser.

In FY 1999, new export permits were approved for a total of 7.3 MMBF of Tongass timber. This included 2.3 MMBF of Alaska yellow cedar, 2.3 MMBF of western red cedar, 0.6 MMBF of Sitka spruce sawlogs, 1.1 MMBF of western hemlock sawlogs, and 1.2 MMBF of utility logs.

Also in FY 1999, extensions of export permits issued in prior years were granted for roughly 7.5 MMBF of Tongass timber, including small amounts of Alaska yellow cedar and western red cedar, .8 MMBF of Sitka spruce sawlogs, 4.7 MMBF of western hemlock sawlogs, and 1.9 MMBF of utility logs. Applications for export permit extensions frequently cite the original volume requested for export and make no deduction for timber already shipped. Because of the way this information is collected and reported, it is not possible to tell what portion of the material has already been exported.

Finally, several export permits issued in prior years were still in effect during FY 1999. The total volume authorized under these permits was 52.7 MMBF. The species and grade breakdown includes 29.9 MMBF of Alaska yellow cedar, 2.7 MMBF of Sitka spruce sawlogs, 10.1 MMBF of western hemlock sawlogs, and 10.0 MMBF of utility logs. The bulk of the cedar was included in export authorizations for large timber offerings released to KPC. Again, these figures include all timber authorized for export and have not been adjusted for shipments that may have occurred after they were issued.

Table A-4 lists the permits approved in FY 1999, as well as permits from prior years that were still active in FY 1999. Permit holders must report the volume of logs exported each year. This information has been compiled and sorted by species and destination for calendar years 1995 through 1999 (Table A-5). In CY 1999, a total of 44.2 MMBF of logs were exported from the Tongass National Forest. The cedar species accounted for 72 percent of the material shipped.

Alaskan Wood Products Trade

The combined value of Alaskan wood product exports held firm at \$207 million in FY 1999 (Table A-6). At \$463/MBF, log export values declined for the fourth consecutive year, dropping another eight percent relative to last fiscal year. However, an increase in the volume of logs exported more than offset the lower unit values, lending stability to the overall dollar value of Alaska's wood products trade. At \$581/MBF, lumber export values were up two percent relative to last fiscal year. Lumber export volumes held steady at 13 MMBF. The domestic market has accounted for an increasing share of Alaska's lumber production over the years. Unfortunately, statistics on domestic shipments are not regularly compiled or reported.

Japan remains the primary market for Alaska's wood product exports, accounting for 69 percent of the total dollar value in FY 1999. Ninety-nine percent of the dollar value of lumber exports was sent to Japan in FY 1999 (Table A-8). Considerably smaller shipments were sent to Belgium and Portugal, the only other sizeable foreign destinations for Alaska's lumber. Japan also purchased most of Alaska's log exports, receiving 68 percent of the total dollar value in FY 1999. South Korea (21 percent), Canada (8 percent), and Taiwan (2 percent) were other primary destinations (Table A-9).

Appendix Tables

TABLE A-1a.

New Offerings Tongass Timber Sales FY 1999 (Post-FY 99 Summary)

| Name | Date Advertised | Indicated Advertised Rate (\$/MBF) | Advertised Rate (\$/MBF) | Logging Costs (\$/MBF) | Specified Road Costs (\$/MBF) | High Bid (\$/MBF) | Number of Bidders | Spruce (%) | Hemlock (%) | Yellow Cedar (%) | Red Cedar (%) | Total Volume (MBF) | High Bidder |
|----------------------|--------------------|---|--------------------------------|------------------------------|-------------------------------------|----------------------|-------------------------|---------------|----------------|------------------------|---------------------|--------------------------|--------------------|
| Wrangell Ranger Di | strict | | | | | | | | | | | | |
| Camp Mossy | 9/30/99 | \$202.17 | \$202.17 | \$16.40 | \$0 | No Bids | 0 | 18 | 54 | 3 | 25 | 1,358 | No Bid |
| Canal Hoya | 9/30/99 | \$4.35 | \$4.83 | \$258.68 | \$79.72 | No Bids | 0 | 17 | 72 | 11 | 0 | 16,127 | No Bid |
| Petersburg Ranger | District | | | | | | | | | | | | |
| Crystal Creek | 9/30/99 | -\$170.63 | \$3.67 | \$239.86 | \$224.57 | \$3.67 | 1 | 7 | 84 | 10 | 0 | 7,017 | Silver Bay Logging |
| Fourleaf | 9/16/99 | -\$50.71 | \$3.78 | \$241.42 | \$108.17 | \$7.35 | 1 | 15 | 79 | 7 | 0 | 21,767 | Viking Lumber Co. |
| Scattered | 9/16/99 | -\$28.04 | \$2.63 | \$285.48 | \$0 | \$4.42 | 1 | 17 | 83 | 0 | 0 | 5,064 | Silver Bay Logging |
| Wedge | 6/24/99 | \$33.96 | \$33.96 | \$270.29 | \$0 | \$38.61 | 2 | 20 | 74 | 6 | 0 | 644 | The Mill, Inc. |
| Sitka Ranger Distric | :t | | | | | | | | | | | | |
| Lisa Creek | 9/28/99 | -\$25.62 | \$11.23 | \$270.17 | \$63.34 | No Bids | 0 | 34 | 60 | 6 | 0 | 6,014 | No Bid |
| St. John | 9/28/99 | -\$2.06 | \$4.60 | \$191.38 | \$105.88 | No Bids | 0 | 39 | 58 | 3 | 0 | 9,528 | No Bid |
| Craig Ranger Distric | ct | | | | | | | | | | | | |
| Longline | 11/14/98 | -\$95.00 | \$6.97 | \$352.37 | \$0 | \$6.97 | 1 | 22 | 54 | 15 | 9 | 5,170 | Ketchikan Pulp Co. |
| North | 8/1/99 | \$70.39 | \$70.39 | \$214.45 | \$125.35 | \$70.63 | 1 | 11 | 51 | 13 | 25 | 7,688 | Gateway |
| South Arm | 9/11/99 | -\$20.16 | \$3.04 | \$208.00 | \$87.59 | \$3.42 | 1 | 14 | 79 | 3 | 4 | 10,092 | Viking Lumber |
| Thorne Bay Ranger | District | | | | | | | | | | | | |
| Grey Ghost Cedar | 9/25/99 | \$306.72 | \$306.72 | \$152.11 | \$0 | No Bids | 0 | 17 | 12 | 64 | 0 | 1,352 | No Bid |
| Kogish Shinaku | 9/30/99 | -\$24.60 | \$8.80 | \$390.72 | \$58.87 | No Bids | 0 | 22 | 48 | 17 | 13 | 12,489 | No Bid |
| Log Jam | 9/25/99 | -\$64.00 | \$5.24 | \$276.46 | \$76.99 | \$9.83 | 1 | 18 | 67 | 0 | 15 | 1,321 | Roger Grant |
| Naukati Blowdown | 8/7/99 | \$87.04 | \$87.04 | \$170.14 | \$0 | \$87.04 | 1 | 15 | 61 | 0 | 24 | 869 | Viking Lumber Co. |
| Rush Angel (2) | 8/13/99 | \$6.80 | \$8.54 | \$218.66 | \$164.37 | No Bid | 0 | 12 | 59 | 10 | 19 | 5,834 | No Bid |
| Tongass Sales < 50 | 0 MBF in size | • | | | | | | | | | | 2,904 | 495 MBF, No Bid |
| | | | | | | | | | | | | 115,238 | TOTAL |
| | | | | | | | | | | | | 53,197 | Subtotal NO-BID |

TABLE A-1b.

Re-Offered Tongass Timber Sales FY 1999 (Post-FY 99 Summary)

| Name | Date Advertised | Indicated Advertised Rate (\$/MBF) | Advertised Rate (\$/MBF) | Logging Costs (\$/MBF) | Specified Road Costs (\$/MBF) | High Bid (\$/MBF) | Number of Bidders | Spruce (%) | Hemlock (%) | Yellow Cedar (%) | Red Cedar (%) | Total Volume (MBF) | High Bidder |
|---------------------|--------------------|---|--------------------------------|------------------------------|-------------------------------------|----------------------|-------------------------|---------------|----------------|------------------------|---------------------|--------------------------|--------------------|
| Petersburg Ranger | District | | | | | | | | | | | | |
| Crane | 6/12/99 | -\$69.34 | \$4.53 | \$173.04 | \$72.06 | \$13.06 | 2 | 21 | 77 | 2 | 0 | 8,420 | Viking Lumber |
| Clover | 6/12/99 | -\$185.20 | \$5.17 | \$203.76 | \$122.35 | No Bids | 0 | 15 | 76 | 8 | 0 | 17,364 | No Bid |
| Rowan Mt. | 6/12/99 | -\$17.95 | \$5.36 | \$226.67 | \$26.24 | \$5.36 | 1 | 27 | 69 | 5 | 0 | 20,231 | Age Cedar Products |
| Todahl Backline | 6/12/99 | -\$115.51 | \$5.06 | \$316.24 | \$8.50 | \$9.28 | 2 | 28 | 69 | 4 | 0 | 7,768 | Age Cedar Products |
| Sitka Ranger Distri | ct | | | | | | | | | | | | |
| Rodman Bay | 6/12/99 | -\$81.09 | \$6.86 | \$299.07 | \$27.02 | No Bids | 0 | 21 | 67 | 12 | 0 | 30,940 | No Bid |
| Craig Ranger Distri | ict | | | | | | | | | | | | |
| Cable Drop | 6/14/99 | \$27.88 | \$27.88 | \$250.01 | \$32.28 | \$30.67 | 1 | 17 | 50 | 18 | 15 | 11,842 | Gateway |
| Dumpy ATC | 4/13/99 | -\$9.81 | \$8.04 | \$209.80 | \$57.41 | \$24.88 | 1 | 15 | 54 | 7 | 25 | 18,193 | Gateway |
| Ketchikan Ranger I | District | | | | | | | | | | | | |
| Brand X | 4/13/99 | -\$89.29 | \$5.73 | \$212.54 | \$35.89 | \$6.83 | 1 | 13 | 76 | 4 | 7 | 1,846 | Gateway |
| Thorne Bay Ranger | District | | | | | | | | | | | | |
| Big Bob | 6/12/99 | \$.18 | \$10.33 | \$260.37 | \$83.74 | \$14.01 | 1 | 17 | 49 | 33 | 1 | 7,170 | Gateway |
| Big Salt | 6/12/99 | -\$210.16 | \$7.41 | \$257.29 | \$163.34 | No Bids | 0 | 23 | 59 | 11 | 7 | 8,274 | No Bid |
| Hard Steel | 6/12/99 | -\$83.51 | \$7.47 | \$223.73 | \$76.45 | No Bids | 0 | 9 | 67 | 14 | 10 | 4,766 | No Bid |
| Rio Beaver | 6/12/99 | \$24.38 | \$24.38 | \$210.01 | \$70.66 | \$26.00 | 1 | 12 | 46 | 14 | 28 | 5,579 | Gateway |
| Rush Angel (1) | 6/12/99 | -\$219.23 | \$11.70 | \$262.50 | \$164.73 | No Bid | 0 | 11 | 54 | 12 | 23 | 5,837 | No Bid |
| Rush Fast | 6/12/99 | -\$74.80 | \$13.96 | \$198.71 | \$115.18 | \$23.44 | 1 | 7 | 45 | 6 | 41 | 789 | Little Bit Logging |
| Summit/Exchange | 6/12/99 | -\$97.45 | \$11.07 | \$251.88 | \$153.15 | No Bids | 0 | 18 | 48 | 20 | 15 | 11,023 | No Bid |
| Wolf Pup | 6/12/99 | -\$188.75 | \$7.99 | \$225.78 | \$196.49 | \$9.11 | 1 | 16 | 63 | 11 | 10 | 1,209 | New Age Mining |
| Tongass Sales < 50 | 00 MBF in siz | e | | | | | | | | | | 452 | No Bids |
| | | | | | | | | | | | | 161,775 | TOTAL |
| | | | | | | | | | | | | 78,625 | Subtotal NO-BID |

TABLE A-2. Employment in the Wood Products Industry¹ Southeast Alaska, Fiscal Years 1981-1999

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Tongass Logging ² | 267 | 335 | 574 | 513 | 559 | 692 | 862 | 1,010 | 1,166 | 1,123 | 872 | 788 | 754 | 621 | 702 | 804 | 823 | 579 | 305 |
| Sawmill | 605 | 540 | 429 | 395 | 363 | 331 | 375 | 468 | 478 | 500 | 604 | 538 | 447 | 515 | 301 | 230 | 184 | 284 | 303 |
| Pulp Mill | 1,081 | 975 | 854 | 700 | 580 | 772 | 861 | 892 | 925 | 899 | 911 | 910 | 859 | 533 | 516 | 524 | 318 | 96 | 63 |
| Tongass-Related Direct Employment ³ | 1,953 | 1,850 | 1,857 | 1,608 | 1,502 | 1,795 | 2,098 | 2,370 | 2,569 | 2,522 | 2,387 | 2,236 | 2,060 | 1,669 | 1,519 | 1,558 | 1,325 | 959 | 671 |
| Other Logging | 780 | 656 | 436 | 433 | 445 | 547 | 683 | 971 | 947 | 1,021 | 682 | 627 | 590 | 556 | 483 | 353 | 226 | 310 | 519 |
| Total Direct Industry Employment | 2,733 | 2,506 | 2,293 | 2,041 | 1,947 | 2,342 | 2,781 | 3,341 | 3,516 | 3,543 | 3,069 | 2,863 | 2,650 | 2,225 | 2,002 | 1,911 | 1,551 | 1,269 | 1,190 |
| Total Indirect Employment ⁴ | 2,125 | 1,950 | 1,800 | 1,600 | 1,500 | 1,825 | 1,950 | 2,350 | 2,550 | 2,570 | 2,226 | 2,077 | 1,935 | 1,624 | 1,461 | 1,395 | 1,132 | 926 | 869 |
| TOTAL DIRECT + INDIRECT EMPLOYMENT | 4,858 | 4,456 | 4,093 | 3,641 | 3,447 | 4,167 | 4,731 | 5,691 | 6,066 | 6,113 | 5,295 | 4,940 | 4,585 | 3,849 | 3,463 | 3,306 | 2,683 | 2,195 | 2,059 |

¹ Includes employment related to the harvest and processing of timber from all ownerships in Southeast Alaska. According to the Alaska Department of Labor, non-residents accounted for 40.1% of timber industry employment in 1997.

² Estimate. Based on the ratio of Tongass timber harvest to total timber harvest in Southeast Alaska.

³ Assumes all employment in sawmills and pulp mills is dependent on Tongass timber supply. Source: Alaska Department of Labor and USDA Forest Service, Region 10, Ecosystem Planning and Budget.

⁴ Jobs related to logging and milling operations, such as road construction and stevedoring are counted as indirect employment. Two computer simulation models (IPASS and IMPLAN) were used to estimate indirect employment. The distinction between direct and indirect employment is a function of the Standard Industrial Classification (SIC) System used nationally for the collection and grouping of economic statistics. For purposes of this report, the wood products "industry" is defined as logging, sawmills, and pulp mills. Persons employed in these businesses are reported here as "direct" employment. "Indirect" employment refers to the persons employed in all businesses supporting operation of the wood products industry. Other indirect jobs are supported when industry employees spend their take-home pay in local communities.

TABLE A-3. Volume of Timber Offered, Sold, and Harvested Tongass National Forest, Fiscal Years 1988-1999

(million board feet, net sawlog + utility)

| | Short- | Term | | Long-Term | Contracts ¹ | | Program Total | | | | | |
|------|------------------|------------------|---------|------------------|------------------------|---------|--------------------|--------------|----------------|-------------------|---------|--|
| | Offer | Sold | Harvest | Prepared | Released | Harvest | Offer/ Prepared | Re- Offer | Total Offer | Sold/ Released | Harvest | |
| 1988 | 92 | 70 | 100 | 365 | 266 | 296 | 387 | 30 | 417 | 336 | 396 | |
| 1989 | 93 | 92 | 142 | 276 | 198 | 303 | 369 | 2 | 371 | 290 | 445 | |
| 1990 | 54 | 26 | 173 | 331 | 287 | 298 | 385 | 22 | 407 | 313 | 471 | |
| 1991 | 79 | 52 | 90 | 318 | 354 | 273 | 397 | 35 | 432 | 405 | 363 | |
| 1992 | 40 | 81 | 72 | 449 | 357 | 298 | 489 | 27 | 516 | 429 | 370 | |
| 1993 | 61 | 45 | 55 | 257 | 303 | 270 | 318 | 32 | 350 | 348 | 325 | |
| 1994 | 100 ² | 52 | 48 | 207 ³ | 217 ³ | 228 | 307 | 30 | 337 | 269 | 276 | |
| 1995 | 110 ⁴ | 102 ² | 59 | 217 ⁵ | 159 | 162 | 327 | 0 | 327 | 261 | 221 | |
| 1996 | 58 | 69 | 27 | 192 | 158 | 93 | 250 | 31 | 281 | 227 | 120 | |
| 1997 | 138 | 152 | 37 | 50 | 50 | 69 | 188 | 6 | 194 | 202 | 107 | |
| 1998 | 186 | 24 | 40 | 0 | 0 | 80 | 186 | 14 | 200 | 24 | 120 | |
| 1999 | 115 | 62 | 60 | 0 | 0 | 86 | 115 | 162 | 277 | 62 | 146 | |

¹ The activities related to the long-term contracts are somewhat different than those of the short-term sale program. The following clarifications are provided in reference to the figures provided above.

Volume Offered: Under the short-term sale program, this refers to advertised volume. The volume fully prepared and available is reported here as a comparable measure for the long-term contracts.

Volume Sold: Under the short-term sale program, this refers to volume awarded to purchasers. The volume formally released to contract holders is reported here as a comparable measure for the long-term contracts. Timber is counted as being released under the long-term contracts when a timber offering has been accepted by the purchaser.

² 53.8 MMBF enjoined by court decision in AWRTA v. Morrison

³ 40.9 MMBF enjoined by court decision in AWRTA v. Morrison

⁴ 67.7 MMBF enjoined by court decision in AWRTA v. Morrison

⁵ 57.8 MMBF enjoined by court decision in AWRTA v. Morrison

TABLE A-4. Tongass National Forest Log Export Permits Issued and/or Effective CY 1999

| Originating Timber Sale | | | | | | | | | | |
|----------------------------|----------------------|-----------|------------|-------------|--------|---------|--------------|-------|---------|--------|
| | Purchaser | Sale Date | Permit No. | Expires | Spruce | Hemlock | Alaska Cedar | | Utility | Total |
| | | | | | MBF | MBF | MBF | MBF | MBF | MBF |
| West Steel | Little Bit Logging | Oct-98 | 99-01 | 3/31/00 | | | 30 | | | 30 |
| 6245 Salvage#023321 | Danger Point | Jan-98 | 99-02 | 12/31/99 | | | 12 | | | 12 |
| Picasso | Seley Family | Sep-98 | 99-03 | 12/31/99 | | | 83 | | | 83 |
| Cloudy | Seley Family | Jun-98 | 99-04 | 5/31/00 | | | 314 | | | 314 |
| Control Center | Viking Lumber | Nov-98 | 99-05 | 3/31/01 | | | 173 | | | 173 |
| North Thorne | Viking Lumber | Nov-98 | 99-06 | 3/31/01 | | | 112 | | | 112 |
| Bohemia | Viking Lumber | Oct-95 | 99-07 | 3/31/02 | | | 74 | | | 74 |
| Etolin | Siver Bay Logging | Jul-98 | 99-08 | 10/31/00 | | | 202 | | | 202 |
| Nemo Loop | Silver Bay Logging | Jan-99 | 99-09 | 12/31/99 | | | 676 | | | 676 |
| Shamrock | Viking Lumber | Oct-95 | 99-10 | 3/31/02 | | | 164 | | | 164 |
| Turn 3 | Silver Bay Logging | Oct-98 | 99-11 | 10/31/02 | | | 264 | | | 264 |
| ATC | Rayonier | Jun-97 | 99-12 | 12/31/99 | | | | | 330 | 330 |
| ATC | Rayonier | Jun-97 | 99-13 | 12/31/99 | 471 | 2,072 | | | | 2,543 |
| Rowan Settlement | Rayonier | Aug-97 | 99-14 | 12/31/99 | | • | | | 1,534 | 1,534 |
| Rowan Settlement | Rayonier | Aug-97 | 99-15 | 12/31/99 | 298 | 2,677 | | | • | 2,975 |
| Stringer Fuelwood | D & L Woodworks | Jan-96 | 99-16 | 12/31/99 | | • | | | 50 | 50 |
| Etolin | Silver Bay Logging | Jul-98 | 99-17 | 10/31/00 | | | | 791 | | 791 |
| Heceta Sawfly | Age Cedar | Mar-97 | 99-18 | 9/30/01 | | | 110 | | | 110 |
| Heceta Sawfly | Age Cedar | Mar-97 | 99-19 | 9/30/01 | | | | 319 | | 319 |
| Two Socks | Danger Point | Dec-98 | 99-20 | 3/31/00 | | | 6 | | | 6 |
| Nemo Loop | Silver Bay Logging | Jan-99 | 99-21 | 9/30/02 | | | | 1,104 | | 1,104 |
| Etolin | Silver Bay Logging | Jul-98 | 99-22 | 10/31/00 | 25 | 125 | | • | 212 | 362 |
| Nemo Loop | Silver Bay Logging | Jan-99 | 99-23 | 9/30/02 | 450 | 550 | | | 543 | 1,543 |
| Turn 3 | Silver Bay Logging | Oct-98 | 99-24 | 10/31/02 | 75 | 250 | | 6 | 290 | 621 |
| Misplaced | Pat Richter | Sep-97 | 99-25 | 10/31/00 | | 125 | | - | | 125 |
| Third Bridge | Whitestone | Apr-99 | 99-26a | 12/31/99 | 20 | 20 | | | 62 | 102 |
| Rush Fast | Little Bit Logging | Jun-99 | 99-27 | 12/31/99 | | | 46 | | | 46 |
| Sonyakay Salvage | North Star | Jul-98 | 99-28 | 12/31/99 | | | 19 | | | 19 |
| Sonyakay Salvage | North Star | Jul-98 | 99-28a | 12/31/99 | 7 | 7 | | | | 14 |
| Foot | SE Alaska Wood Prod. | Mar-99 | 99-29 | 3/31/00 | - | _ | 12 | | | 12 |
| Rock Twin | SE Alaska Wood Prod. | Feb-99 | 99-30 | 3/31/00 | | | 10 | | | 10 |
| Election Creek Cedar Salva | | Aug-99 | 99-31 | 9/30/00 | | | 20 | | | 20 |
| Saginaw | Rayonier | Mar-95 | 99-32 | Disapproved | | | 20 | | | 0 |
| Loft | Frank Age | Sep-97 | 99-33 | 12/31/99 | | | | 50 | | 50 |
| Peep Rock | Seley Family | Dec-97 | 99-34 | 12/31/99 | | | | 47 | | 47 |
| TOTAL | | 2000. | 0001 | , ., ., ., | 1,346 | 5,826 | 2,326 | 2,317 | 3,021 | 14,836 |

| Table A-4. Continued. Perm Originating Timber Sale | Purchaser | Sale Date | Permit No. | Evnires | Spruce | Hemlock | Alaska Cedar | W Red Cedar | Utility | Total |
|---|-----------------------|-----------|---------------|-------------|--------|---------|--------------|-------------|---------|----------|
| Originating Timber Sale | i di ciiasei | Jaie Date | i cillit ivo. | Lxpires | MBF | MBF | MBF | MBF | Othicy | MBF |
| Humpback/Gallagher | Whitestone SE Logging | Apr-97 | 98-04 | 9/30/99 | 2 | 8 | | | | 10 |
| Saook Bay | Silver Bay Logging | Sep-94 | 98-12 | Disapproved | | _ | | | | 0 |
| Little Hamilton Salvage Resal | | Apr-98 | 98-18 | 3/31/99 | | | 73 | | | 73 |
| Southfork Salvage | Jerry Jones | Jun-98 | 98-19 | 6/30/99 | | | 10 | | | 10 |
| South McKenzie | Silver Bay Logging | Jul-95 | 98-21 | 3/31/00 | 100 | | | | | 100 |
| Southfork Salvage | Jerry Jones | Jun-98 | 98-22 | 6/30/99 | | | | | | 9 9 |
| Southfork Salvage | Jerry Jones | Jun-98 | 98-23 | 6/30/99 | | 12 | | | 12 | 24 |
| Appleton Cove Resale | Silver Bay Logging | Oct-94 | 98-24 | 9/30/99 | 50 | | | | | 50 |
| Tributary | D&L Woodworks | Jul-96 | 98-26 | 12/31/99 | | | | | 5 | |
| Suntaheen | Whitestone SE Logging | Mar-98 | 98-27 | 12/31/99 | 13 | 9 | | | | 8 50 |
| One-Two-Three | Whitestone SE Logging | Mar-98 | 98-28 | 12/31/99 | 4 | 2 | | | | 8 14 |
| Rowan Settlement | Rayonier, Inc. | Aug-97 | 98-31 | 3/31/00 | | | 595 | | | 595 |
| Little Hamilton Salvage Resal | | Apr-98 | 98-33 | 3/31/99 | 30 | | | | | 30 |
| Little Hamilton Salvage Resal | | Apr-98 | 98-34 | 3/31/99 | | 60 | | | | 60 |
| ATC | Rayonier, Inc. | Sep-97 | 98-37 | 12/31/99 | | | 878 | | | 878 |
| Kwati | Pat Richter | Sep-97 | 98-38 | 12/31/99 | | 100 | | | | 100 |
| Green Creek Settlement | Greens Creek Mining | Mar-98 | 98-39 | 12/31/99 | | | | | 1 | |
| Lancaster and Sentinel | Seley Family | Jun-97 | 98-42 | 12/31/99 | | | 45 | | | 45 |
| Slide/Lava | Ketchikan Pulp Co. | Feb-97 | 97-14 | 12/31/99 | | | 102 | | | 102 |
| South Margaret | Ketchikan Pulp Co. | Feb-97 | 97-15 | 12/31/99 | | | 1,650 | | | 1,650 |
| Trumpeter 6 | Ketchikan Pulp Co. | Feb-97 | 97-16 | 12/31/99 | | | 221 | | | 221 |
| Bushy Chin | Ketchikan Pulp Co. | Feb-97 | 97-17 | 12/31/99 | | | 1,589 | | | 1,589 |
| West Polk | Ketchikan Pulp Co. | Feb-97 | 97-18 | 12/31/99 | | | 4,168 | | | 4,168 |
| Big Dewey | Ketchikan Pulp Co. | Feb-97 | 97-19 | 12/31/99 | | | 3,712 | | | 3,712 |
| North Thorne/Little Ratz | Ketchikan Pulp Co. | Feb-97 | 97-20 | 12/31/99 | | | 3,447 | | | 3,447 |
| KHS | Ketchikan Pulp Co. | Feb-97 | 97-21 | 12/31/99 | | | 3,660 | | | 3,660 |
| Thorne Bay II | Ketchikan Pulp Co. | Feb-97 | 97-22 | 12/31/99 | | | 1,421 | | | 1,421 |
| East Polk | Ketchikan Pulp Co. | Feb-97 | 97-23 | 12/31/99 | | | 1,720 | | | 1,720 |
| Little Coal Bay | Ketchikan Pulp Co. | Feb-97 | 97-24 | 12/31/99 | | | 2,382 | | | 2,382 |
| Naukati/Sarkar | Ketchikan Pulp Co. | Feb-97 | 97-25 | 12/31/99 | | | 398 | | | 398 |
| East 12 Mile | Ketchikan Pulp Co. | Feb-97 | 97-26 | 12/31/99 | | | 3,109 | | | 3,109 |
| Saginaw | Rayonier, Inc. | Mar-95 | 97-70 | 12/31/01 | | | | | 3,07 | 7 3,077 |
| Saginaw | Rayonier, Inc. | Mar-95 | 97-71 | 12/31/01 | 480 | 7,889 | | | · | 8,369 |
| Saginaw | Rayonier, Inc. | Mar-95 | 97-72 | 12/31/01 | | - | 451 | | | 451 |
| Saook Bay | Silver Bay Logging | Sep-94 | 96-72 | 9/15/00 | 2,000 | 2,000 | 300 | | 6,80 | |
| TOTAL | | • | | | 2,679 | 10,080 | 29,931 | | 12 9,98 | 7 52,689 |

TABLE A-5. Tongass National Forest Log Exports – CY 1995-1999

| Date | Location | Volume Sh | ipped | | | | |
|---------|--------------|-----------|--------|-------|--------|-------|--------|
| | | AYC | WRC | SS | WH | Other | Total |
| CY 1995 | Canada | | 101 | 162 | 766 | | 1,029 |
| | Japan | 14,132 | 22,202 | 30 | 53 | | 36,418 |
| | Korea | | 40 | | | | 40 |
| | Taiwan | | 3 | | | | 3 |
| | Washington | 144 | 1,297 | 13 | | | |
| | Not Reported | 728 | | 34 | 194 | | 955 |
| | TOTAL | 15,003 | 23,643 | 240 | 1,013 | | 39,899 |
| CY 1996 | Canada | 155 | 113 | 3 | 7 | | 279 |
| | Japan | 7,391 | 5,714 | 516 | 127 | | 13,747 |
| | Korea | | 12 | | 10 | | 22 |
| | Taiwan | 1 | 560 | | | | 561 |
| | Washington | 118 | 300 | 743 | 1,617 | 30 | 2,808 |
| | Not Reported | 6 | | | | | 6 |
| | TOTAL | 7,670 | 6,699 | 1,262 | 1,762 | 30 | 17,423 |
| CY 1997 | Canada | 17 | | 3,625 | 5,247 | | 8,889 |
| | Japan | 7,200 | 3,977 | 1,464 | 2,859 | | 15,500 |
| | Korea | | 761 | 14 | 160 | | 935 |
| | Taiwan | 338 | 3,527 | 174 | 162 | | 4,201 |
| | Oregon | 4 | | 5 | 4,668 | | 4,676 |
| | Washington | 9 | 3,321 | 8 | 131 | | 3,469 |
| | Not Reported | 225 | 380 | 26 | 106 | | 737 |
| | TOTAL | 7,793 | 11,967 | 5,316 | 13,332 | | 38,407 |
| CY 1998 | Canada | 45 | 1,189 | 787 | 2,384 | | 6,448 |
| | Japan | 4,777 | 213 | 54 | 105 | | 5,149 |
| | Korea | 0 | 0 | 33 | 193 | | 226 |
| | Taiwan | 1,291 | 1,971 | 1 | 17 | | 3,279 |
| | Oregon | 0 | 0 | 29 | 4,522 | | 4,552 |
| | Washington | 313 | 2,647 | 163 | 403 | | 3,868 |
| | Not Reported | | | 18 | 1 | | 19 |
| | TOTAL | 6,426 | 6,020 | 1,085 | 7,625 | | 23,541 |
| CY 1999 | Canada | 29 | 59 | 247 | 865 | | 1,200 |
| | Pacific Rim | 13,600 | 7,938 | 1,401 | 4,944 | | 27,883 |
| | Lower 48 | 8,080 | 2,215 | 45 | 4,804 | | 15,144 |
| | TOTAL | 21,709 | 10,212 | 1,693 | 10,613 | | 44,227 |

TABLE A-6.
International Exports of Alaskan Wood Products
Fiscal Years 1981-1999

| Product/Unit ¹ | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|---|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| SOFTWOOD LOGS | | | | | | | | ı | | | | | | | l | ı | | | |
| Volume (MMBF) | 130.1 | 197.5 | 292.6 | 237.6 | 258.6 | 340.3 | 436.1 | 482.2 | 629.6 | 606.6 | 516.9 | 537.4 | 500.2 | 518.9 | 542.7 | 550.9 | 585.9 | 373.4 | 415.7 |
| Value (\$/MM) | 68.4 | 95.4 | 128.3 | 97.1 | 99.6 | 137.9 | 179.6 | 261.6 | 310.3 | 350.9 | 293.9 | 327.4 | 362.6 | 391.7 | 347.7 | 390.0 | 381.9 | 188.8 | 192.2 |
| Unit Value(\$/MBF) | 526 | 483 | 439 | 408 | 385 | 405 | 412 | 543 | 493 | 578 | 569 | 609 | 725 | 755 | 641 | 708 | 652 | 506 | 463 |
| Inflation Adjusted (\$98/MBF) | 927 | 793 | 692 | 616 | 560 | 572 | 565 | 719 | 625 | 703 | 662 | 689 | 802 | 819 | 683 | 739 | 666 | 506 | 458 |
| LUMBER AND CANTS |) | , | 1 | | | | | | 1 | | . | 1 | 1 | 1 | | | 1 | | |
| Volume (MMBF) | 202.5 | 178.6 | 136.0 | 113.3 | 122.0 | 93.5 | 121.0 | 152.5 | 182.3 | 225.5 | 180.7 | 120.8 | 145.2 | 122.7 | 73.3 | 25.9 | 30.8 | 13.1 | 13.3 |
| Value (\$/MM) | 60.3 | 62.5 | 45.5 | 32.2 | 32.5 | 24.7 | 33.9 | 52.1 | 71.0 | 85.3 | 74.8 | 50.3 | 74.4 | 67.7 | 51.5 | 20.9 | 18.1 | 7.5 | 7.7 |
| Unit Value(\$/MBF) | 298 | 350 | 334 | 284 | 266 | 264 | 280 | 342 | 389 | 378 | 414 | 416 | 512 | 552 | 702 | 747 | 587 | 571 | 581 |
| Inflation Adjusted (\$98/MBF) | 525 | 574 | 526 | 429 | 387 | 373 | 384 | 453 | 493 | 460 | 482 | 471 | 566 | 599 | 748 | 780 | 600 | 571 | 575 |
| WOODCHIPS | | | | | | | | | | | | | | | | | | | |
| Volume (Thousand Metric Tons) | 60.5 | 84.8 | 19.0 | 10.5 | 4.5 | 0.0 | 0.0 | 10.4 | 77.9 | 18.2 | 87.8 | 19.5 | 41.3 | 69.1 | 102.1 | 166.8 | 107.1 | 135.8 | 96.2 |
| Value (\$/MM) | 5.5 | 6.4 | 1.3 | 0.3 | 0.4 | 0.0 | 0.0 | 0.6 | 3.6 | 1.4 | 7.3 | 1.5 | 4.3 | 8.2 | 15.2 | 17.4 | 8.3 | 11.3 | 7.2 |
| Unit Value(\$/Metric Ton) | 90 | 75 | 66 | 32 | 98 | 0 | 0 | 54 | 46 | 78 | 83 | 79 | 105 | 119 | 149 | 105 | 77 | 83 | 55 |
| Inflation Adjusted (\$98/Metric Ton) | 159 | 123 | 104 | 48 | 142 | 0 | 0 | 71 | 58 | 95 | 97 | 89 | 116 | 132 | 159 | 110 | 79 | 83 | 54 |
| WOODPULP | | | | | | | | | | | | | | | | | | | |
| Volume (Thousand Metric Tons) | 252.9 | 211.0 | 188.5 | 249.5 | 166.5 | 203.8 | 232.0 | 260.4 | 296.9 | 289.3 | 263.8 | 299.2 | 209.5 | 156.8 | 146.5 | 101.6 | 82.9 | 0 | 0 |
| Value (\$/MM) | 135.7 | 113.3 | 94.8 | 127.3 | 72.0 | 85.4 | 113.9 | 160.4 | 227.7 | 203.4 | 162.2 | 175.0 | 123.3 | 90.1 | 134.0 | 88.1 | 50.0 | 0 | 0 |
| Unit Value(\$/Metric Ton) | 537 | 601 | 503 | 510 | 433 | 419 | 492 | 616 | 767 | 703 | 615 | 585 | 588 | 575 | 915 | 867 | 603 | 0 | 0 |
| Inflation Adjusted (\$98/Metric Ton) | 947 | 986 | 793 | 770 | 630 | 592 | 675 | 816 | 972 | 856 | 716 | 662 | 650 | 624 | 974 | 905 | 616 | 0 | 0 |
| TOTAL VALUE (\$MM) | 269.9 | 277.6 | 269.9 | 256.9 | 204.5 | 248.0 | 327.4 | 474.7 | 612.7 | 641.0 | 538.2 | 554.2 | 564.6 | 557.7 | 548.4 | 516.4 | 458.3 | 207.6 | 207.1 |

¹ Values are free along ship (FAS) in millions of dollars. Source: Compiled from official statistics reported by the U.S. Department of Commerce (1999).

TABLE A-7. Timber Harvest and Imports for Southeast and Southcentral Alaska Fiscal Years 1981-1999

| | | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|---------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Southeast Alas | ska | | | | | | | | | | | | | |
| Tongass N.F. | Sawlogs | 282.0 | 331.5 | 377.0 | 399.0 | 299.6 | 303.1 | 268.3 | 221.8 | 181.3 | 97.4 | 94.4 | 107.6 | 132.8 |
| | Utility Logs | 54.2 | 64.7 | 67.6 | 72.0 | 64.6 | 66.6 | 56.7 | 54.0 | 39.8 | 22.8 | 12.2 | 12.2 | 12.9 |
| State of | Sawlogs | 19.5 | 16.8 | 11.4 | 11.1 | 4.0 | 14.9 | 5.0 | 18.1 | 3.6 | 4.5 | 5.2 | 5.6 | 7.3 |
| Alaska | Utility Logs | 0.3 | 0.1 | 0.1 | 1.0 | 0.0 | 0.1 | 0.0 | 2.7 | 2.2 | 2.5 | 0.3 | 1.9 | 0.1 |
| BIA | | 0.0 | 0.0 | 3.5 | 0.0 | 7.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Alaska Native | Sawlogs | 282.5 | 277.0 | 419.8 | 433.7 | 307.2 | 348.7 | 328.2 | 275.0 | 233.9 | 292.4 | 335.9 | 157.6 | 193.6 |
| Corporations ² | Utility Logs | 121.5 | 118.1 | 112.1 | 72.4 | 147.4 | 97.0 | 82.2 | 12.3 | 81.1 | 37.7 | 47.6 | 59.0 | 45.4 |
| Total | Sawlogs | 584.0 | 625.3 | 811.7 | 843.8 | 618.3 | 671.2 | 601.5 | 514.9 | 418.8 | 394.3 | 435.5 | 270.8 | 333.7 |
| Southeast Harvest | Utility Logs | 176.0 | 182.9 | 179.8 | 145.4 | 212.0 | 163.7 | 138.9 | 69.0 | 123.1 | 63.0 | 60.1 | 73.1 | 58.4 |
| Tidi Vest | Total | 760.0 | 808.2 | 991.5 | 989.2 | 830.3 | 834.9 | 740.4 | 583.9 | 541.9 | 457.3 | 495.6 | 343.9 | 392.1 |
| Southcentral A | laska | | | | | | | | | | | | | |
| Chugach N.F. | Sawlogs | 0.7 | 1.0 | 1.1 | 1.1 | 1.1 | 0.5 | 1.7 | 0.0 | 1.1 | 1.3 | 0.8 | 0.8 | 0.1 |
| | Utility Logs | 0.0 | 0.0 | 0.4 | 0.4 | 0.4 | 0.0 | 0.0 | 6.5 | 0.8 | 2.0 | 1.4 | 0.7 | 0.3 |
| State of | Sawlogs | 1.1 | 0.5 | 0.5 | 0.4 | 1.7 | 8.0 | 0.0 | 0.0 | 2.6 | 8.1 | 8.6 | 5.0 | 5.4 |
| Alaska | Utility Logs | 0.8 | 1.6 | 1.6 | 0.6 | 0.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Alaska Native | Sawlogs | 44.2 | 79.2 | 120.0 | 105.1 | 134.5 | 123.5 | 127.2 | 186.0 | 210.6 | 199.6 | 197.4 | 88.7 | 108.4 |
| Corporations ² | Utility Logs | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.5 | 8.0 | 39.7 | 83.5 | 31.5 |
| Total | Sawlogs | 46.0 | 80.7 | 121.6 | 106.6 | 137.3 | 124.8 | 128.9 | 186.0 | 214.3 | 209.0 | 206.8 | 94.5 | 113.9 |
| Southcentral Harvest | Utility Logs | 0.8 | 8.0 | 2.0 | 1.0 | 1.2 | 0.2 | 0.0 | 6.5 | 20.3 | 10.0 | 41.1 | 84.3 | 31.8 |
| Tiai Voot | Total | 46.8 | 88.7 | 123.6 | 107.6 | 138.5 | 125.0 | 128.9 | 192.5 | 234.3 | 219.0 | 247.9 | 178.8 | 145.7 |
| Alaskan | Sawlogs | 5.7 | 0.1 | 1.8 | 1.2 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Imports | Utility Logs | 5.1 | 6.8 | 1.9 | 0.0 | 0.0 | 3.0 | 3.0 | 3.0 | 11.5 | 34.1 | 0.0 | 0.0 | 0.0 |
| | Chips ³ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

² Estimated from trade statistics and data provided by local mills.

³ Compiled from official statistics reported by the U.S. Department of Commerce. Cords of utility logs are converted to log scale at a rate of 2 cords/MBF. Metric tons are converted to log scale at a ratio of 2.7 tons per MBF.

TABLE A-8. Softwood Lumber and Cant Exports from Alaska Fiscal Years 1988-1999¹

| | | | | | VOLUM | IE (MBF) | | | | | | |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Australia | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Belgium | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| Canada | 2,064 | 88 | 16 | 0 | 657 | 4 | 0 | 0 | 69 | 3 | 256 | 0 |
| Hong Kong | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Iceland | 245 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ireland | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Italy | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Japan | 145,343 | 180,874 | 211,189 | 169,160 | 117,615 | 135,598 | 116,184 | 72,765 | 25,783 | 29,368 | 10,798 | 13,238 |
| Korea, South | 4,305 | 1,099 | 7,022 | 3,203 | 0 | 8,804 | 1,994 | 1,462 | 0 | 344 | 0 | 0 |
| Morocco | 0 | 0 | 2,379 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Netherlands | 298 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Portugal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| Saudi Arabia | 0 | 0 | 2,921 | 3,606 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Singapore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 |
| Taiwan | 188 | 87 | 0 | 220 | 2,597 | 777 | 4,553 | 65 | 0 | 0 | 2,070 | 0 |
| United Kingdom | 36 | 94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| World | 152,504 | 182,322 | 223,527 | 176,189 | 120,869 | 145,249 | 122,731 | 73,291 | 25,853 | 29,715 | 13,132 | 13,275 |
| | | | | | VALU | E (\$M) | | | | | | |
| | 1988 | 1998 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Australia | \$11 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Belgium | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$31 |
| Canada | \$739 | \$24 | \$5 | \$0 | \$164 | \$4 | \$0 | \$0 | \$17 | \$3,182 | \$48 | \$0 |
| Hong Kong | \$0 | \$4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Iceland | \$45 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Ireland | \$0 | \$5 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Italy | \$0 | \$31 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Japan | \$48,385 | \$70,309 | \$80,186 | \$70,361 | \$49,557 | \$64,734 | \$63,122 | \$49,400 | \$20,922 | \$17,561 | \$6,996 | \$7,650 |
| Korea, South | \$2,754 | \$559 | \$3,281 | \$1,851 | \$0 | \$9,422 | \$3,509 | \$2,002 | \$0 | \$101 | \$0 | \$0 |
| Morocco | \$0 | \$0 | \$770 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Netherlands | \$89 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Portugal | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$27 |
| Saudi Arabia | \$0 | \$0 | \$555 | \$701 | \$0 | \$0 | \$0 | \$0 | \$0 | \$9 | \$0 | \$0 |
| Singapore | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$6 | \$3 |
| Taiwan | \$80 | \$23 | \$0 | \$88 | \$579 | \$226 | \$1,094 | \$58 | \$0 | \$0 | \$442 | \$0 |
| United Kingdom | \$14 | \$29 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| World | \$52,117 | \$70,984 | \$84,797 | \$73,001 | \$50,300 | \$74,399 | \$67,725 | \$51,461 | \$20,939 | \$20,844 | \$7,493 | \$7,711 |

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 $^{^{\}rm 1}$ Compiled from official statistics published by the U.S. Department of Commerce, 1999.

TABLE A-8 (continued) Softwood Lumber and Cant Exports from Alaska Fiscal Years 1988-1999²

| | | | | | UNIT VAL | JE (\$/MBF) | | | | | | |
|----------------|-------|-------|-------|-------|----------|-------------|---------|---------|-------|---------|-------|---------|
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Australia | \$742 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Belgium | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,701 |
| Canada | \$358 | \$272 | \$319 | \$0 | \$250 | \$1,049 | \$0 | \$0 | \$243 | \$1,061 | \$188 | \$0 |
| Hong Kong | \$0 | \$169 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Iceland | \$184 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Ireland | \$0 | \$281 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Italy | \$0 | \$813 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Japan | \$333 | \$389 | \$380 | \$416 | \$421 | \$477 | \$543 | \$688 | \$812 | \$598 | \$648 | \$578 |
| Korea, South | \$638 | \$509 | \$467 | \$578 | \$0 | \$0 | \$1,760 | \$1,369 | \$0 | \$294 | \$0 | \$0 |
| Morocco | \$0 | \$0 | \$324 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Netherlands | \$299 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Portugal | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,517 |
| Saudi Arabia | \$0 | \$0 | \$190 | \$194 | \$0 | \$1,070 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Singapore | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$691 | \$3,323 |
| Taiwan | \$425 | \$265 | \$0 | \$400 | \$223 | \$291 | \$240 | \$895 | \$0 | \$0 | \$214 | \$0 |
| United Kingdom | \$389 | \$308 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| World | \$342 | \$389 | \$379 | \$414 | \$416 | \$512 | \$552 | \$702 | \$747 | \$701 | \$571 | \$581 |

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 $^{^{2}}$ Compiled from official statistics published by the U.S. Department of Commerce, 1999.

TABLE A-9. Softwood Log Exports from Alaska Fiscal Years 1988-1999¹

| | | | | | VOLU | JME (MBF) | | | | | | |
|---------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Australia | 18 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Canada | 70,117 | 38,029 | 12,595 | 15,393 | 4,477 | 2,978 | 1,049 | 78,256 | 29,223 | 33,496 | 117,886 | 77,042 |
| China | 11,647 | 12,259 | 1,326 | 19,132 | 26,049 | 24,528 | 17,329 | 3,775 | 8,488 | 2,256 | 3,030 | 2,649 |
| Germany, West | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hong Kong | 0 | 0 | 0 | 0 | 4,505 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| India | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,509 | 0 |
| Jamaica | 0 | 0 | 0 | 4,636 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Japan | 302,594 | 460,792 | 465,152 | 359,842 | 384,553 | 311,200 | 391,911 | 344,599 | 373,467 | 400,460 | 179,943 | 234,879 |
| Korea, South | 86,781 | 108,540 | 109,264 | 94,448 | 90,170 | 135,264 | 84,780 | 94,541 | 120,076 | 134,340 | 59,296 | 90,287 |
| Switzerland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,490 | 883 |
| Taiwan | 8,988 | 9,926 | 18,199 | 23,411 | 27,728 | 26,203 | 23,851 | 21,538 | 0 | 0 | 8,210 | 9,934 |
| Turkey | 1,822 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| World | 481,978 | 629,557 | 606,535 | 516,862 | 537,483 | 500,173 | 518,920 | 542,710 | 550,901 | 570,552 | 373,366 | 415,673 |
| | | | | | VAI | _UE (\$M) | | | | | | |
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Australia | \$35 | \$15 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Canada | \$9,313 | \$8,625 | \$3,924 | \$4,218 | \$2,049 | \$697 | \$597 | \$24,478 | \$10,768 | \$7,034 | \$26,366 | \$14,494 |
| China | \$3,229 | \$3,735 | \$548 | \$11,072 | \$16,562 | \$15,482 | \$10,269 | \$1,530 | \$4,389 | \$1,225 | \$1,874 | \$886 |
| Germany, West | \$17 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 0 |
| Hong Kong | \$0 | \$0 | \$0 | \$0 | \$3,528 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 0 |
| India | \$0 | \$) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,384 | 0 |
| Jamaica | \$0 | \$0 | \$0 | \$3,397 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 0 |
| Japan | \$211,450 | \$252,323 | \$289,217 | \$231,217 | \$256,811 | \$256,032 | \$318,520 | \$255,998 | \$290,999 | \$292,597 | \$121,189 | \$131,361 |
| Korea, South | \$33,833 | \$41,315 | \$47,518 | \$33,456 | \$33,927 | \$71,055 | \$47,703 | \$51,963 | \$71,141 | \$68,656 | \$30,490 | \$40,518 |
| Switzerland | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$750 | \$675 |
| Taiwan | \$3,778 | \$4,335 | \$9,628 | \$10,553 | \$14,782 | \$19,321 | \$14,599 | \$13,721 | \$0 | \$0 | \$5,807 | \$4,321 |
| Turkey | \$246 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| World | \$261,901 | \$310,348 | \$350,835 | \$293,913 | \$327,659 | \$362,587 | \$391,669 | \$347,688 | \$389,964 | \$369,512 | \$188,832 | \$192,235 |
| | | ſ | ſ | ſ | UNIT VA | LUE (\$/MB | F) | | ſ | ſ | ſ | T |
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Australia | \$1,934 | \$1,416 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Canada | \$133 | \$227 | \$312 | \$274 | \$458 | \$234 | \$569 | \$322 | \$369 | \$210 | \$223 | \$188 |
| China | \$277 | \$305 | \$413 | \$579 | \$636 | \$631 | \$593 | \$405 | \$517 | \$543 | \$619 | \$327 |
| Germany, West | \$1,540 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Hong Kong | \$0 | \$0 | \$0 | \$0 | \$783 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| India | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$680 | \$0 |
| Jamaica | \$0 | \$0 | \$0 | \$733 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Japan | \$699 | \$548 | \$622 | \$643 | \$668 | \$823 | \$813 | \$743 | \$779 | \$731 | \$673 | \$559 |
| Korea, South | \$390 | \$381 | \$435 | \$354 | \$376 | \$525 | \$563 | \$550 | \$593 | \$511 | \$514 | \$449 |
| Switzerland | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$503 | \$764 |
| Taiwan | \$420 | \$437 | \$529 | \$451 | \$533 | \$737 | \$612 | \$637 | \$0 | \$0 | \$707 | \$435 |
| Turkey | \$135 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| World | \$543 | \$493 | \$578 | \$569 | \$610 | \$725 | \$755 | \$641 | \$708 | \$648 | \$506 | \$462 |

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 $^{^{\}rm 1}$ Compiled from official statistics published by the U.S. Department of Commerce, 1999.

TABLE A-10. Chip Exports from Alaska Fiscal Years 1988-1999²

| | | | | | VOL | JME (Metr | ic Tons) | | | | | |
|--------------|--------|---------|---------|---------|---------|------------|-------------|----------|----------|---------|----------|---------|
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Canada | 0 | 0 | 3,810 | 0 | 7,790 | 6,277 | 0 | 0 | 0 | 15,522 | 33,179 | 96,203 |
| Japan | 10,437 | 77,918 | 14,355 | 87,767 | 11,700 | 35,054 | 69,067 | 102,084 | 166,819 | 85,571 | 102,646 | 35,193 |
| Korea, South | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,007 | 0 | 0 |
| World | 10,437 | 77,918 | 18,165 | 87,767 | 19,490 | 41,331 | 69,067 | 102,084 | 166,819 | 107,100 | 135,825 | 131,396 |
| | | | | | | VALUE (\$ | M) | | | | | |
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Canada | \$0 | \$0 | \$134 | \$0 | \$203 | \$134 | \$0 | \$0 | \$0 | \$1,351 | \$1,375 | \$4,019 |
| Japan | \$559 | \$3,620 | \$1,285 | \$7,279 | \$1,343 | \$4,199 | \$8,216 | \$15,189 | \$17,488 | \$6,521 | \$9,902 | \$3,189 |
| Korea, South | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$396 | \$0 | \$0 |
| World | \$559 | \$3,620 | \$1,419 | \$7,279 | \$1,546 | \$4,333 | \$8,216 | \$15,189 | \$17,488 | \$8,268 | \$11,277 | \$7,208 |
| | | | | | UNIT V | ALUE (\$/N | letric Ton) | | | | | |
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Canada | \$0 | \$0 | \$35 | \$0 | \$26 | \$21 | \$0 | \$0 | \$0 | \$87 | \$41 | \$42 |
| Japan | \$54 | \$46 | \$90 | \$83 | \$115 | \$120 | \$119 | \$149 | \$105 | \$76 | \$96 | \$91 |
| Korea, South | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$66 | \$0 | \$0 |
| World | \$54 | \$46 | \$78 | \$83 | \$79 | \$105 | \$119 | \$149 | \$105 | \$77 | \$83 | \$55 |

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 $^{^{2}}$ Compiled from official statistics published by the U.S. Department of Commerce, 1999.

TABLE A-11. Japanese Imports of Softwood Logs and Lumber Calendar Years 1983-1999¹

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|--------------------|-----------|-----------|-----------|-----------|-----------|------------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | | so | FTWOOD LUI | MBER (MBF ²) | | | | | | |
| United States | 577,622 | 522,354 | 558,725 | 721,678 | 923,680 | 983,549 | 1,112,793 | 1,050,406 | 1,019,237 | 896,018 | 857,142 | 788,254 | 748,193 |
| Canada | 849,408 | 817,447 | 916,030 | 882,669 | 1,172,328 | 1,337,909 | 1,565,897 | 1,568,587 | 1,786,722 | 1,870,031 | 2,312,241 | 2,338,706 | 2,464,340 |
| Russia | 54,488 | 61,964 | 64,240 | 71,531 | 76,014 | 94,212 | 110,675 | 112,355 | 101,653 | 95,132 | 120,648 | 148,448 | 179,669 |
| New Zealand | 114,863 | 76,458 | 65,531 | 49,583 | 55,909 | 53,006 | 45,025 | 88,153 | 109,214 | 105,311 | 99,636 | 106,894 | 123,350 |
| Chile ³ | 0 | 0 | 0 | 71,268 | 90,662 | 138,648 | 137,990 | 172,456 | 168,125 | 112,858 | 168,719 | 128,897 | 227,624 |
| South Seas | 20,776 | 14,987 | 31,202 | 45,407 | 46,626 | 50,115 | 49,961 | 33,061 | 45,343 | 41,262 | 57,259 | 56,006 | 55,371 |
| Other | 42,709 | 70,379 | 103,381 | 70,215 | 115,553 | 113,803 | 135,177 | 97,381 | 71,495 | 55,648 | 143,056 | 280,995 | 390,055 |
| TOTAL | 1,659,867 | 1,563,590 | 1,739,108 | 1,912,352 | 2,480,771 | 2,771,242 | 3,157,519 | 3,122,399 | 3,301,791 | 3,176,260 | 3,758,702 | 3,848,201 | 4,189,601 |
| | | | | | S | OFTWOOD L | OGS (MBF) | | | | | | |
| United States | 1,693,721 | 1,586,590 | 1,721,419 | 1,836,462 | 2,134,399 | 2,072,889 | 2,411,951 | 2,255,062 | 1,969,603 | 1,863,723 | 1,673,622 | 1,602,149 | 1,545,944 |
| Canada | 162,791 | 263,219 | 304,507 | 315,053 | 414,966 | 261,816 | 193,086 | 112,947 | 89,677 | 163,682 | 107,305 | 65,378 | 40,009 |
| Russia | 1,299,021 | 115,466 | 1,103,352 | 1,238,568 | 1,217,785 | 1,109,627 | 974,361 | 899,102 | 791,052 | 798,072 | 1,002,974 | 980,007 | 1,088,101 |
| New Zealand | 69,015 | 67,467 | 64,955 | 57,384 | 85,867 | 125,688 | 168,394 | 296,545 | 355,151 | 410,763 | 378,877 | 411,008 | 412,005 |
| Chile ³ | 0 | 0 | 0 | 59,568 | 55,271 | 47,623 | 53,261 | 68,894 | 60,451 | 35,667 | 44,387 | 26,042 | 23,989 |
| South Seas | 37,845 | 46,002 | 39,568 | 28,244 | 28,800 | 26,171 | 33,919 | 38,957 | 27,257 | 18,833 | 15,951 | 21,392 | 14,714 |
| Other | 52,543 | 82,444 | 89,060 | 5,052 | 5,847 | 5,680 | 12,813 | 11,112 | 9,972 | 13,205 | 29,649 | 81,264 | 143,613 |
| TOTAL | 3,314,936 | 2,160,904 | 3,322,861 | 3,540,330 | 3,942,934 | 3,649,473 | 3,847,783 | 3,682,620 | 3,303,165 | 3,303,945 | 3,252,765 | 3,187,239 | 3,268,376 |

¹ Source: Wood Supply and Demand Information Service, various issues. Published by Japan Wood Products Information and Research Center. ² Converted from cubic meters at a rate of 4.53 MBF log scale/m³ and 2.36 MBF lumber tally/m³. ³ Prior to 1986, imports from Chile were included in the "Other" category.

TABLE A-11 (continued).
Japanese Imports of Softwood Logs and Lumber
Calendar Years 1983-1999

| | 1996 | 1997 | 1998 | 1999 | | | | | | |
|---------------|-----------|-----------|-----------|-----------|-----|------------|------------|--|--|--|
| | | | | | SOI | FTWOOD LUI | MBER (MBF) | | | |
| United States | 746,171 | 557,158 | 284,847 | 284,995 | | | | | | |
| Canada | 2,554,453 | 2,395,599 | 1,617,139 | 1,918,153 | | | | | | |
| Russia | 171,938 | 221,602 | 131,371 | 194,083 | | | | | | |
| New Zealand | 121,125 | 143,129 | 104,620 | 114,458 | | | | | | |
| Chile | 172,790 | 258,567 | 161,154 | 184,392 | | | | | | |
| South Seas | 53,683 | 50,696 | 40,240 | 51,280 | | | | | | |
| Other | 555,422 | 949,947 | 501,619 | 837,697 | | | | | | |
| TOTAL | 4,375,583 | 4,576,698 | 2,840,990 | 3,585,058 | | | | | | |
| | | | | | S | OFTWOOD LO | OGS (MBF) | | | |
| United States | 1,508,576 | 1,224,494 | 925,654 | 861,020 | | | | | | |
| Canada | 26,169 | 25,896 | 101,993 | 184,541 | | | | | | |
| Russia | 1,107,518 | 1,269,295 | 979,960 | 1,256,964 | | | | | | |
| New Zealand | 471,006 | 437,263 | 412,709 | 355,230 | | | | | | |
| Chile | 28,289 | 33,847 | 24,345 | 21,772 | | | | | | |
| South Seas | 14,043 | 8,406 | 6,712 | 5,538 | | | | | | |
| Other | 78,670 | 82,805 | 54,536 | 80,574 | | | | | | |
| TOTAL | 3,234,272 | 3,082,005 | 2,505,909 | 2,765,639 | | | | | | |

TABLE A-12. Housing Starts in Japan¹

| Year | Total Number of Starts | Number Wood- Based | Percent Wood- Based | Average Floorspace (ft ²) Wood-Based | Average Floorspace (ft ²) Non-Wood |
|------|------------------------|--------------------------|---------------------------|--|--|
| 1965 | 842 596 | 646 536 | 77% | | |
| 1970 | 1,484,556 | 1,035,500 | 70% | | |
| 1972 | 1,807,581 | 1,111,846 | 62% | | |
| 1974 | 1,316,100 | 869,637 | 66% | | |
| 1979 | 1,492,926 | 909,582 | 61% | | |
| 1981 | 1,151,695 | 653,643 | 57% | | |
| 1982 | 1,146,144 | 666,960 | 58% | | |
| 1983 | 1,136,794 | 590,848 | 52% | | |
| 1984 | | | | | |
| 1985 | 1,236,072 | 591,911 | 48% | 1,055 | 754 |
| 1986 | 1,364,609 | 633,858 | 46% | 1,039 | 734 |
| 1987 | 1,674,300 | 741,552 | 44% | 1,051 | 694 |
| 1988 | 1,684,644 | 697,267 | 41% | 1,078 | 705 |
| 1989 | 1,662,612 | 719,870 | 43% | 1,076 | 720 |
| 1990 | 1,707,109 | 727,770 | 43% | 1,071 | 715 |
| 1991 | 1,370,126 | 624,003 | 46% | 1,113 | 760 |
| 1992 | 1,402,590 | 671,130 | 48% | 1,105 | 757 |
| 1993 | 1,485,684 | 697,496 | 47% | 1,159 | 773 |
| 1994 | 1,570,252 | 721,431 | 46% | 1,205 | 822 |
| 1995 | 1,470,330 | 666,124 | 45% | 1,192 | 839 |
| 1996 | 1,643,266 | 754,296 | 46% | 1,249 | 852 |
| 1997 | 1,387,014 | 611,316 | 44% | 1,208 | 840 |
| 1998 | 1,198,295 | 545,133 | 46% | 1,221 | 824 |
| 1999 | 1,214,601 | 565,544 | 47% | 1,176 | 812 |

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¹ Source: Japan Wood Products Information and Research Center, February 2000.

TABLE A-13. Volume Under Contract Independent Sales (MBF, Sawlog + Utility)

| PURCHASER | SALE NAME | 9/30/94 | 9/30/95 | 9/30/96 | 9/30/97 | 9/30/98 | 9/30/99 |
|--------------------------------|---------------------------|---------|---------|---------|----------|----------|---------|
| 3-D Logging | Gander Salvage | | | | | 36.2 | 40.2 |
| Alaska Pacific Trading Co. | Granite | 5,346.5 | 0 | 0 | 0 | 0 | 0 |
| Alaska Fibre | Pipeline | | | | | 15.2 | 0 |
| | Twin Creek #1 | | | | | | 15.0 |
| Age, Frank | Zarembo Salvage | 371.0 | 0 | 0 | 0 | 0 | 0 |
| | Cedar | | | 105.0 | 0 | 0 | 0 |
| | Kindergarten Salvage | | | 25.0 | 0 | 0 | 0 |
| | One Ring | | | | 51.0 | 0 | 0 |
| | Tatonka | | | | 67.0 | 0 | 0 |
| | Hecata Sawfly Salvage | | | | 11,647.0 | 11,647.0 | 8,316.6 |
| | Junction Timber | | | | 154.0 | 154.0 | 154.0 |
| | Alder Creek Timber | | | | 2,183.0 | 2,183.0 | 2,183.0 |
| | Loft Timber | | | | 297.0 | 297.0 | 297.0 |
| | Ridge | | | | 629.0 | 629.0 | 629.0 |
| Archipelago Log Homes | Lower Rio Beaver | | | | | | 86.0 |
| Beaver Creek Logging Inc. | Ahtun Point Salvage | | | | | 60.0 | 60.0 |
| Belk Logging | Shikat Plus A-Frame | 161.0 | 105.0 | 0 | 0 | 0 | 0 |
| Big Salt Lumber | Upper Steel Salvage | 72.1 | 0 | 0 | 0 | 0 | 0 |
| | Rockie Dog II | | 11.0 | 0 | 0 | 0 | 0 |
| Onder the Timber 0 | Rock Creek Slide II | 0.040.0 | 71.0 | 71.0 | 0 | 0 | 0 |
| Cedarville Timber & Logging | Snowpup | 3,048.0 | 0 | 0 | 0 | 0 | U |
| Chambers, Jack | Rynda Boomstick | 4,546.0 | 1,937.3 | 0 | 0 | 0 | 0 |
| | 8400 Line Salvage | 696.0 | 0 | 0 | 0 | 0 | 0 |
| Cook, Mel | Peanut Sale | | | 37.0 | 0 | 0 | 0 |
| D & L Logging | Turnout Salvage | 318.0 | 0 | 0 | 0 | 0 | 0 |
| | Fogbank Salvage | | 180.0 | 0 | 0 | 0 | 0 |
| | Freshwater Salvage | | 36.0 | 0 | 0 | 0 | 0 |
| DOL Washington | Little Hamilton Salvage | | | 331.0 | 331.0 | 331.0 | 0 |
| D&L Woodworks | Tributary Salvage | | | 113.0 | 0 | 9.0 | 0 |
| Danger Point Timber | 6245 Salvage Dakota | | | | | 9.0 | 275.0 |
| Ensely, Jim | Twin | 65.0 | 0 | 0 | 0 | 0 | 0 |
| Fox River Timber Corp. | Deep Bay South | 2,904.1 | 0 | 0 | 0 | 0 | 0 |
| Fuford, Ryan | Jubilee Cedar Salvage | 15.0 | 0 | 0 | 0 | 0 | 0 |
| Gateway Timber Co. | Pathway | 10.0 | | | 15.2 | 0 | 0 |
| Graves, Timothy | Kitkun Bay | 4,212.8 | 0 | 0 | 0 | 0 | 0 |
| H&L Salvage | E. Shaheen Cull Log | 25.0 | 0 | 0 | 0 | 0 | 0 |
| | Sleepy Cedar Too | 20.0 | 5.0 | 0 | 0 | 0 | 0 |
| | End of Road | | 30.0 | 5.0 | 0 | 0 | 0 |
| | Son of Joe Cedar Salvage | | | | 5.2 | 0 | 0 |
| | All Weather Log Salvage | | | | 32.0 | 0 | 0 |
| | Cone Cedar Salvage | | | | | 62.5 | 0 |
| | Crackling Cliffs | | | | | | 23.5 |
| Hummer Enterprise | Kogish Cedar Salvage | | | | | 62.0 | 62.0 |
| Icy Straits Lumber Co. | Wukuklook Salvage | | 72.2 | 0 | 0 | 0 | 0 |
| Jones, Greg | Hanus Fuelwood | | | | | | 12.5 |
| Jones, Jerry | Cutthroat Log Salvage | | | 37.0 | 0 | 0 | 0 |
| | Goose Creek Cedar Salvage | | | 20.0 | 0 | 0 | 0 |
| <u> </u> | Bubba Gump | | | | | 48.0 | 0 |

| | PURCHASER | SALE NAME | 9/30/94 | 9/30/95 | 9/30/96 | 9/30/97 | 9/30/98 | 9/30/99 |
|---|----------------------------|---------------------------------------|-----------|------------|------------|----------|----------|------------|
| Junes Warren Polk Switchback Salvage | | Southfork Salvage | | | | | .5 | 0 |
| Ketchikan Pulp Company Longline | | Election Creek Cedar | | | | | | 24.0 |
| Kohrike, John | Jones, Warren | Polk Switchback Salvage | | | 29.0 | 0 | 0 | 0 |
| Lik Logging Two View 152.0 0 0 0 0 0 0 0 0 0 | Ketchikan Pulp Company | Longline | | | | | | 5,170.1 |
| LBL Logging | Kohnke, John | Froot Lake Salvage | | 9.0 | 6.0 | 0 | 0 | 0 |
| B. Logging | L&L Logging | _ | 152.0 | 0 | 0 | 0 | 0 | 0 |
| Spilt PHS Salvage | | Middle Steel Salvage | 101.0 | 0 | 0 | 0 | 0 | 0 |
| Last Chance Enterprises Goose Bay Cedar 25.0 0 0 0 0 0 0 0 0 0 | | | 94.0 | 0 | 0 | 0 | 0 | 0 |
| Last Chance Enterprises Coose Bay Cedar 25.0 0 0 0 0 0 0 0 0 0 | Landers, Keith | Goose Bay Cedar II | | 10.0 | 2.0 | 0 | 0 | 0 |
| Last Chance Enterprises Goose Bay Cedar 25.0 0 0 0 0 0 0 0 0 0 | | · · · · · · · · · · · · · · · · · · · | | | | | 49.0 | 0 |
| Rush Too/East Rush Peak 23.0 0 0 0 0 0 0 0 0 0 | Last Chance Enterprises | i | 25.0 | 0 | 0 | 0 | 0 | 0 |
| Roadside Hazard Removal 10.9 0 0 0 0 0 0 0 0 0 | • | · | 23.0 | 0 | 0 | 0 | 0 | 0 |
| Wolf Pup Log Salvage | | | | | <u> </u> | | | 0 |
| Inbetween Log Salvage | | | | | <u> </u> | | | 0 |
| A Point Log Salvage | | | | | 10.0 | · | | 0 |
| Relief Salvage | | i | | | | | | 0 |
| Little Bit Logging Rush Fast 66 McCormick Enterprises Old Tom Cedar 186.8 11 Charred Cedar Salvage 49.5 49.5 2 McGraw Gravel Sales, Inc. False Island Blowdown 390.0 0 0 0 0 Metakatla Forest Products Tuxecan North 1,989.9 0 0 0 0 0 Mhopint 5,328.0 2,844.0 0< | | | | | | 100.0 | | 256.0 |
| McCormick Enterprises | Little Rit Legging | · · · · · · · · · · · · · · · · · · · | | | | | 250.0 | 682.3 |
| Charred Cedar Salvage | | | | | | | 106.0 | 186.8 |
| McGraw Gravel Sales, inc. False Island Blowdown 390.0 0 0 0 0 Metlakatla Forest Products Tuxecan North 1,989.9 0 0 0 0 Midpoint 5,328.0 2,844.0 0 0 0 0 Deep Bay North 14,860.0 13,661.0 4,143.9 0 0 Timber Knob Pass Salvage 415.0 0 0 0 Triangle Salvage 348.0 0 0 0 Meyer, David Lava Log Salvage 348.0 0 0 Meyer, David Lava Log Salvage 33.0 33.0 33.0 Multic, Jeff Edge Salvage 33.0 33.0 33.0 33.0 Multic, Jeff Edge Salvage 104.0 0 0 0 New Taditions Sarkar Stringer 1.75 0 0 0 0 New Traditions Sarkar Stringer 22.0 6.0 0 0 0 0 Salamander Log | MCCornick Enterprises | | | | | | | |
| Metlakatla Forest Products | MaCray Crayal Calaa Jaa | | 200.0 | 0 | 0 | 0 | | 24.5 |
| Salt Lake | • | | | | | | | 0 |
| Midpoint 5,328.0 2,844.0 0 0 0 0 0 0 0 0 0 | Metiakatia Forest Products | | · · · · · | <u> </u> | <u> </u> | | | 0 |
| Deep Bay North | | | , | | <u> </u> | | | 0 |
| Timber Knob Pass Salvage 415.0 0 0 Triangle Salvage 348.0 0 0 Foggy 1,088.0 678.0 Meyer, David Lava Log Salvage 9.7 8.5 Monro, Mike Spruce Flats Salvage 33.0 33.0 33.0 Music, Jeff Edge Salvage 104.0 0 0 New Age Wolf Pup 1.75 0 0 0 0 New Traditions Sarkar Stringer 1.75 0 0 0 0 0 New Traditions Sarkar Stringer 22.0 6.0 | | ' | <u> </u> | · · · · · | <u> </u> | | | 0 |
| Triangle Salvage | | ' ' | 14,860.0 | 13,661.0 | | 1 | | 0 |
| Meyer, David | | | | | | | | 0 |
| Meyer, David Lava Log Salvage 9.7 8.5 Monro, Mike Spruce Flats Salvage 33.0 33.0 33.0 Music, Jeff Edge Salvage 104.0 0 0 New Age Wolf Pup 1,15 0 0 0 0 New Traditions Sarkar Stringer 1.75 0 0 0 0 0 Buck Snort/Lab Bay 37.8 25.5 0 <td< td=""><td></td><td>Triangle Salvage</td><td></td><td></td><td>348.0</td><td><u> </u></td><td><u> </u></td><td>0</td></td<> | | Triangle Salvage | | | 348.0 | <u> </u> | <u> </u> | 0 |
| Monro, Mike Spruce Flats Salvage 33.0 33.0 33.0 Music, Jeff Edge Salvage 104.0 0 0 New Age Wolf Pup 1,1s 0 0 0 Mining/Excavation 8 0 0 0 0 New Traditions Sarkar Stringer 1.75 0 0 0 0 Buck Snort/Lab Bay 37.8 25.5 0 0 0 0 X-mark Stringer 22.0 6.0 0 0 0 0 Staney Stringer 26.0 8.5 0 0 0 0 Ratz Stringer 8.0 0 0 0 0 0 Sweetwater Log Salvage 6.0 0 0 0 0 0 Exchange Stringer 8.0 0 0 0 0 0 0 Pacific Log & Lumber Ltd. Todahl Backline 9 2 23.0 2 2 2 2 | | 007 | | | | | | 0 |
| Music, Jeff Edge Salvage 104.0 0 0 New Age Mining/Excavation Wolf Pup 1,15 0 0 0 0 New Traditions Sarkar Stringer 1.75 0 0 0 0 Buck Snort/Lab Bay 37.8 25.5 0 0 0 0 X-mark Stringer 22.0 6.0 0 0 0 0 Staney Stringer 26.0 8.5 0 0 0 0 Ratz Stringer 8.0 0 0 0 0 0 Sweetwater Log Salvage 6.0 0 0 0 0 0 Exchange Stringer 8.0 0 0 0 0 0 0 0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1,786 0 0 | Meyer, David | | | | | <u> </u> | | 0 |
| New Age Mining/Excavation Wolf Pup 1,15 New Traditions Sarkar Stringer 1.75 0 0 0 0 Buck Snort/Lab Bay 37.8 25.5 0 0 0 0 X-mark Stringer 22.0 6.0 0 0 0 0 Staney Stringer 26.0 8.5 0 0 0 0 Salamander Log Salvage 8.0 0 0 0 0 0 Ratz Stringer 8.0 0 0 0 0 0 0 Sweetwater Log Salvage 6.0 | , | i · | | | 33.0 | 33.0 | 33.0 | 0 |
| Mining/Excavation Sarkar Stringer 1.75 0 0 0 0 New Traditions Buck Snort/Lab Bay 37.8 25.5 0 0 0 X-mark Stringer 22.0 6.0 0 0 0 0 Staney Stringer 26.0 8.5 0 0 0 0 Salamander Log Salvage 8.0 0 0 0 0 0 Ratz Stringer 8.0 0 <t< td=""><td></td><td>Edge Salvage</td><td></td><td></td><td>104.0</td><td>0</td><td>0</td><td>0</td></t<> | | Edge Salvage | | | 104.0 | 0 | 0 | 0 |
| Buck Snort/Lab Bay 37.8 25.5 0 0 0 0 X-mark Stringer 22.0 6.0 0 0 0 0 Staney Stringer 26.0 8.5 0 0 0 0 Salamander Log Salvage 8.0 0 0 0 0 Ratz Stringer 8.0 0 0 0 0 Sweetwater Log Salvage 6.0 0 0 0 0 Exchange Stringer 23.0 Pacific Log & Lumber Ltd. Todahl Backline 20,23 Rowan Mountain 20,23 Porter Lumber Upper Tux Salvage 24,141.0 24,041.0 24,041.0 21,346.0 13,7 Rayonier, Inc. Saginaw 24,141.0 24,041.0 24,041.0 21,346.0 13,7 Rowan Settlement 11,439.0 11,439.0 3,11 Richter, Patrick Misplaced Timber 620.0 0 Kosciusko Stringer 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 | · · | Wolf Pup | | | | | | 1,192.8 |
| X-mark Stringer 22.0 6.0 0 0 0 Staney Stringer 26.0 8.5 0 0 0 Salamander Log Salvage 8.0 0 0 0 Ratz Stringer 8.0 0 0 0 Sweetwater Log Salvage 6.0 0 0 0 Exchange Stringer 23.0 0 0 0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 7,86 Rowan Mountain 20,23 1 20,23 Porter Lumber Upper Tux Salvage 1 20,23 1 Rayonier, Inc. Saginaw 24,141.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 8 Kwati Timber 620.0 0 53.4 5 Fort Alice Cull Log | New Traditions | Sarkar Stringer | 1.75 | 0 | 0 | 0 | 0 | 0 |
| Staney Stringer 26.0 8.5 0 0 0 Salamander Log Salvage 8.0 0 0 0 Ratz Stringer 8.0 0 0 0 Sweetwater Log Salvage 6.0 0 0 0 Exchange Stringer 23.0 0 0 0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 0 0 0 0 Rowan Mountain 20,23 0 0 0 0 0 1 20,23 0 0 1 20,23 0 < | | Buck Snort/Lab Bay | 37.8 | 25.5 | 0 | 0 | 0 | 0 |
| Salamander Log Salvage 8.0 0 0 0 Ratz Stringer 8.0 0 0 0 Sweetwater Log Salvage 6.0 0 0 0 Exchange Stringer 23.0 23.0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 Rowan Mountain 20,23 Porter Lumber Upper Tux Salvage 1 Lower Tux Salvage 24,141.0 24,041.0 24,041.0 21,346.0 13,7 Rayonier, Inc. Saginaw 24,141.0 24,041.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 8,544.0 2,72 Richter, Patrick Misplaced Timber 813.0 813.0 81 Kwati Timber 620.0 0 53.4 5 Kosciusko Stringer 37.0 0 0 0 0 Port Alice Cull Log 59.0 59.0 0 0 0 0 | | X-mark Stringer | 22.0 | 6.0 | 0 | 0 | 0 | 0 |
| Salamander Log Salvage 8.0 0 0 0 Ratz Stringer 8.0 0 0 0 Sweetwater Log Salvage 6.0 0 0 0 Exchange Stringer 23.0 23.0 0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 0 0 0 0 20,23 Rowan Mountain 20,23 0 0 0 1 20,23 0 0 0 20,23 0 | | Staney Stringer | 26.0 | 8.5 | 0 | 0 | 0 | 0 |
| Sweetwater Log Salvage 6.0 0 0 0 Exchange Stringer 23.0 23.0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 Rowan Mountain 20,23 Porter Lumber Upper Tux Salvage 12 Lower Tux Salvage 24,141.0 24,041.0 21,346.0 13,7 Rayonier, Inc. Saginaw 24,141.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 813.0 Kwati Timber 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | | | | 8.0 | 0 | 0 | 0 | 0 |
| Sweetwater Log Salvage 6.0 0 0 0 Exchange Stringer 23.0 23.0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 Rowan Mountain 20,23 Porter Lumber Upper Tux Salvage 12 Lower Tux Salvage 24,141.0 24,041.0 21,346.0 13,7 Rayonier, Inc. Saginaw 24,141.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 813.0 Kwati Timber 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | | Ratz Stringer | | 8.0 | 0 | 0 | 0 | 0 |
| Exchange Stringer 23.0 Pacific Log & Lumber Ltd. Todahl Backline 7,86 Rowan Mountain 20,23 Porter Lumber Upper Tux Salvage 14 Lower Tux Salvage 24,141.0 24,041.0 24,041.0 21,346.0 13,7 Rayonier, Inc. Saginaw 24,141.0 24,041.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 813.0 Kwati Timber 620.0 0 59.0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | | | | 6.0 | 0 | 0 | 0 | 0 |
| Pacific Log & Lumber Ltd. Todahl Backline 7,86 Rowan Mountain 20,23 Porter Lumber Upper Tux Salvage 12 Lower Tux Salvage 24,141.0 24,041.0 24,041.0 21,346.0 13,7 Rayonier, Inc. Saginaw 24,141.0 24,041.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 813.0 Kwati Timber 620.0 0 59.0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | | | | | | | 23.0 | 0 |
| Rowan Mountain 20,22 | Pacific Log & Lumber Ltd. | i | | | | | | 7,868.1 |
| Porter Lumber Upper Tux Salvage 12 Lower Tux Salvage 24,141.0 24,041.0 24,041.0 21,346.0 13,7 Rayonier, Inc. Saginaw 24,141.0 24,041.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 813.0 Kwati Timber 620.0 0 0 53.4 5 Kosciusko Stringer 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | | | | | | | | 20,231.1 |
| Lower Tux Salvage 13 Rayonier, Inc. Saginaw 24,141.0 24,041.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 8 Kwati Timber 620.0 0 0 Kosciusko Stringer 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | Porter Lumber | | | | | | | 140.5 |
| Rayonier, Inc. Saginaw 24,141.0 24,041.0 24,041.0 21,346.0 13,7 ATC 8,544.0 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 8 Kwati Timber 620.0 0 0 53.4 5 Fort Alice Cull Log 59.0 59.0 0 0 0 0 | T Oftor Edition | | | | | | | 138.1 |
| ATC 8,544.0 2,72 Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 813.0 8 Kwati Timber 620.0 0 0 53.4 5 Kosciusko Stringer 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | Rayonier Inc | i | | 24 141 0 | 24 041 0 | 24 041 0 | 21 346 0 | 13,7630 |
| Rowan Settlement 11,439.0 11,439.0 3,10 Richter, Patrick Misplaced Timber 813.0 813.0 8 Kwati Timber 620.0 0 0 Kosciusko Stringer 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | rayonor, mo. | • | | ۷, ۱۰-۱۰.0 | 2-7,0-71.0 | | | 2,728.0 |
| Richter, Patrick Misplaced Timber 813.0 813.0 8 Kwati Timber 620.0 0 Kosciusko Stringer 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | | | | | | | | 3,104.0 |
| Kwati Timber 620.0 0 Kosciusko Stringer 37.0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | Pichter Patrick | | | | | | | |
| Kosciusko Stringer 37.0 0 0 0 53.4 5 Port Alice Cull Log 59.0 59.0 0 0 0 0 | MONEY, FAUNCK | | | | | | | 813.0 0 |
| Port Alice Cull Log 59.0 59.0 0 0 0 | | 1 | 27.0 | ^ | ^ | 1 | <u> </u> | |
| Š | | | | | | | | 53.4 |
| Sealaska Himber Corp. De kumba Salvage 585.0 0 0 0 0 | Cooleaka Timb O | | | 1 | | <u> </u> | | 0 |
| Twenty Mile/Indian Creek 11,865.0 91.0 0 0 0 | Sealaska Timber Corp. | · | | | | | <u> </u> | 0 |

| PURCHASER | SALE NAME | 9/30/94 | 9/30/95 | 9/30/96 | 9/30/97 | 9/30/98 | 9/30/99 |
|----------------------------------|--------------------------------|----------|----------|----------|----------|----------------|----------------|
| Seley Family Ltd. aka | East Thorne Arm | 193.5 | 0 | 0 | 0 | 0 | 0 |
| Seley Corp. | | | | | | | |
| | North Ridge Sale | | 924.0 | 0 | 0 | 0 | 0 |
| | Red's Bridge | | 452.0 | 452.0 | 0 | 0 | 0 |
| | Top of the World | | | 199.0 | 0 | 0 | 0 |
| | Lancaster Salvage | | | | 1,083.0 | 0 | 0 |
| | Sentinal | | | | 3,590.0 | 0 | 0 |
| | Rock King | | | | 2,056.0 | 2787.9 | 0 |
| | Cloudy Picasso | | | | | | |
| | Abandon | | | | | 607.9 278.0 | 237.6 278.0 |
| | Peep Rock Timber | | | | | 1,531.0 | 1,531.0 |
| Silver Bay Logging | Appleton Resale | | 23,348.0 | 10,684.0 | 8,356.0 | 7,266.6 | 2,940.3 |
| Silver bay Logging | Saook | 29,833.0 | 29,833.0 | 29,833.0 | 23,348.0 | 23,348.0 | 23,348.0 |
| | Hanus ATC | 29,033.0 | 29,000.0 | 15,546.0 | 5,463.8 | 23,346.0 | 23,340.0 |
| | South McKenzie | | | 12,317.0 | 11,343.8 | 4,496.5 | 1,387.0 |
| | King George | | | 12,017.0 | 24,790.0 | 24,790.0 | 24,790.0 |
| | Upper Carroll | | | | 30,072.0 | 30,072.0 | 30,072.0 |
| | South Lindy | | | | 30,072.0 | 10,573.0 | 10,573.0 |
| | Etolin | | | | | 2,139.7 | 0 |
| | South Lindy One | | | | | 2,100.7 | 1,575.1 |
| | Turn | | | | | | 1,759.7 |
| | Nemo Loop | | | | | | 3,545.6 |
| Sokol, Ray | Browns Cove Salvage | | | | 6.0 | 6.0 | 6.0 |
| Southeast Alaska Wood | Foot | | | | 0.0 | 0.0 | 196.0 |
| Products | | | | | | | |
| The Mill, Inc. | Sumner Salvage | 3,105.0 | 1,748.0 | 0 | 0 | 0 | 0 |
| | 11-Mile Blowdown | | 47.0 | 0 | 0 | 0 | 0 |
| | Wedge | | | | | | 644.0 |
| Thorne Bay Lumber Enterprises | Tiny Salvage | 16.0 | 0 | 0 | 0 | 0 | 0 |
| | Fall/Six | 35.0 | 31.0 | 0 | 0 | 0 | 0 |
| | Bug Bite/RP Cull Log | 36.0 | 6.2 | 0 | 0 | 0 | 0 |
| | Rio Beaver | 33.0 | 4.0 | 0 | 0 | 0 | 0 |
| | North Thorne Stringer | | 14.0 | 0 | 0 | 0 | 0 |
| | Stress Salvage | | 10.0 | 0 | 0 | 0 | 0 |
| | Loop | | | | 50.0 | 0 | 0 |
| | Little Hamilton Salvage Resale | | | | | 331.0 | 0 |
| | Buster Bay | | | | | 233.0 | 0 |
| Vandervort, Lawrence | 800 Contour Salvage | | | 58.0 | 15.4 | 0 | 0 |
| Viking Lumber Company | Bohemia | | | 33,710.0 | 30,619.0 | 23,959.0 | 17,686.0 |
| | Dog Salmon Road Salvage | | | 10.0 | 0 | 0 | 0 |
| | Cape Pole | | | 1,438.0 | 0 | 0 | 0 |
| | Warren Channel | | | 912.0 | 0 | 0 | 0 |
| | Shamrock | | | | 24,280.0 | 15,246.0 | 15,246.0 |
| | Mountain Beaver | | | | 468.0 | 0 | 0 |
| | Во | | | | | 1,305.2 | 1,305.2 |
| | 21 Salvage | | | | | 57.0 | 0 |
| | Crane | | | | | | 8,405.6 |
| | North Thorne | | | | | | 2,304.0 |
| | Naukati Blowdown | | | | | | 884.9 |
| | Chusini Salvage | | | | | | 435.0 |
| Wagner, Keith | Beaver Slide Stringer | | | | | | 4.4 |
| Walker Wood Products | Bonanza Cull Log Salvage | 119.0 | 119.0 | 0 | 0 | 0 | 0 |

| PURCHASER | SALE NAME | 9/30/94 | 9/30/95 | 9/30/96 | 9/30/97 | 9/30/98 | 9/30/99 |
|-----------------------|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | - | - | | |
| Weber, Andy | Cutlog Cedar Salvage | | | | | 63.7 | 0 |
| West, Robert | 49 Cedar Sale | | | 20.0 | 0 | 0 | 0 |
| | Old Franks Cedar | | | 41.0 | 3.0 | 0 | 0 |
| | Scene Salvage | | | | 1.0 | 0 | 0 |
| Whitestone Logging | Humpback/Gallagher | | | | 21,319.0 | 21,121.1 | 16,364.9 |
| Wilks Logging | East Polk Salvage | 19.0 | 19.0 | 0 | 0 | 0 | 0 |
| Wood Marine | Cavern Stringer | 6.0 | 0 | 0 | 0 | 0 | 0 |
| W.R. Tonsgard Logging | Eagle Salvage | | | 71.0 | 0 | 0 | 0 |
| | Two Bears Salvage | | | 27.0 | 0 | 0 | 0 |
| Subtotal Independent | | 93,646.8 | 100,362.7 | 144,711.0 | 252,814.0 | 229,226.2 | 232,675.5 |
| Sales | | | | | | | |
| Enjoined Sales | | -29,833.0 | -53,874.0 | -0 | -0 | -10.573 | -0 |
| Available Unscaled | | 63,813.8 | 46,488.7 | 177,711.0 | 252,814.0 | 229,215.6 | 232,675.5 |
| Volume | | | | | | | |

TABLE A-14. Volume Under Contract Ketchikan Pulp Company

(MBF, Sawlog + Utility)

| PURCHASER | SALE NAME | 9/30/94 | 9/30/95 | 9/30/96 | 9/30/97 | 9/30/98 | 9/30/99 |
|------------------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|----------|
| Ketchikan Pulp Company Contract | Offer 1 Lab/Whale Pass | 51,343.0 | 51,343.0 | 52,802.0 | 0 | 0 | 0 |
| | Offer 2 Coffman/Winter | 7,000.0 | 0 | 0 | 0 | 0 | 0 |
| | Offer 3 Thorne Bay | 10,000.0 | 0 | 0 | 0 | 0 | 0 |
| | Offer 4 Polk Inlet | 6,000.0 | 0 | 0 | 0 | 0 | 0 |
| | Offer 9 Shelter Cove | 10,000.0 | 900.0 | 550.0 | 0 | 0 | 0 |
| | Offer 11 North Saddle | 13,973.0 | 5,500.0 | 2,000.0 | 0 | 0 | 0 |
| | Offer 12 Sumez Island | 23,921.0 | 5,250.0 | 0 | 0 | 0 | 0 |
| | Offer 13 Hume Island | 5,808.0 | 5,000.0 | 541.0 | 0 | 0 | 0 |
| | Offer 14 Fire Cove | 25,993.0 | 4,000.0 | 0 | 0 | 0 | 0 |
| | Offer 15 Upper Salt Creek | 31,196.0 | 11,000.0 | 3,433.0 | 0 | 0 | 0 |
| | Offer 16 Slide/Lava | 17,402.0 | 5,500.0 | 3,366.0 | 0 | 0 | 0 |
| | Offer 17 South Margaret | · | 23,000.0 | 13,264.0 | 3,594.6 | 0 | 0 |
| | Offer 18 Traitors River | | 25,000.0 | 320.0 | 0 | 0 | 0 |
| | Offer 19 Campbell | 12,540.0 | 4,000.0 | 0 | 0 | 0 | 0 |
| | Offer 20 Crab Bay (1) | 30,986.0 | 30,986.0 | 9,000.0 | cancelled | | |
| | Offer 21 Inbetween | 9,917.0 | 9,917.0 | 4,400.0 | cancelled | | |
| | Offer 22 Trumpeter 6 | | 500.0 | 2,037.0 | 0 | 0 | 0 |
| | Offer 23 Chin Pt./Bushy Pt. | | 41,500.0 | 40,872.0 | 32,006.2 | 27,827.5 | 8,225.4 |
| | Offer 24 Little Coal Bay | | 17,500.0 | 0 | 17,537.4 | 16,509.5 | 5,388.9 |
| | Offer 25 East Polk | | 17,000.0 | 14,865.0 | 6,839.6 | 0 | 0 |
| | Offer 26 Thorne Bay II | | 12,000.0 | 14,328.0 | 6,537.0 | 4,246.5 | 0 |
| | Offer 31 KSH | | | 42,538.0 | 42,544.4 | 33,363.1 | 23,963.6 |
| | Offer 32 North Thorne/Ratz | | | 22,420.0 | 21,539.2 | 15,334.6 | 0 |
| | Offer 33 Big Dewey | | | 65,465.0 | 38,812.9 | 10,570.1 | 2,267.5 |
| | Offer 34 Nauk/Sarkar | | | | 22,870.0 | 21,363.8 | 9,332.0 |
| | Offer 35 West Polk | | | 27,976.0 | 25,671.8 | 9,336.5 | 0 |
| | Offer 36 East 12 Mile | | | | 27,320.0 | 27,320.0 | 27,320.0 |
| | Sink Blowdown | | 156.0 | 0 | 0 | 0 | 0 |
| | Swing | | 2,119.0 | 0 | 0 | 0 | 0 |
| Subtotal KPC | | 256,079.0 | 272,171.0 | 320,176.0 | 245,273.1 | 166,051.5 | 79,903.5 |
| Enjoined/Undercut Volume | | -92,246.0 | -92,246.0 | -0 | -0 | -0 | -0 |
| Available Unscaled Volume | | 163,833.0 | 179,925.0 | 320,176.0 | 245,273.1 | 166,051.5 | 79,903.5 |